INSTRUMENTS AND EXPERIMENTAL TECHNIQUES

Subject Index

(1977-1991)

1. PARTICLE ACCELERATORS

1.1. Electron accelerators

Generation of High-Energy Electron Beams of Large Cross Sections (Review). *S. P. Bugaev, Yu. E. Kreindel', and P. M. Shchanin.* **1980, No. 1, 1 [7].**

System for Changing Anode Foil in a Pulse Electron Accelerator. *E. I. Baranchikov, V. D. Korolev, and V. P. Smirnov.* **1977, No. 1, 22 [24].**

Diode Electron Accelerator with Large-Beam Cross Section. *G. S. Kaz'min, N. N. Koval', Yu. E. Kreindel', V. S. Tolkachev, and P. M. Shchanin.* **1977, No. 4, 942 [19].**

Small 600-keV Nanosecond Electron Accelerator. *N. V. Belkin, V. V. Kul'gavchuk, N. G. Pavlovskaya. M. Yu. Tarakanov, V. A. Tsukerman, and S. L. Él'yash.* **1977, No. 5, 1266 [36].**

Computer Prediction and Diagnosis of Failures of Systems in Electron Linear Accelerator. *V. N. Boriskin and I. A. Grishaev.* **1977, No. 5, 1277 [45].**

Small Tube for Electron Acceleration to 500 keV with Pulse Duration 2 nsec. *N. G Pavlovskaya, S. I. Él'yash, N. A. Dron', and G. N. Sloeva.* **1978, No. 5, 1183 [29].**

Direct-Action Accelerators with Inductive Energy Storage and Exploding Conductors. *Yu. D. Bakulin, V. S. Diyankov, V. P. Kovalev, A. I. Kormilitsyn, B. N. Lavrent'ev, A. V. Luchinskii, and V. I. Martynov.* **1979, No. 2, 323 [34].**

Experiments on Recuperation of the Energy of a Monoenergetic Electron Beam in a Collector of Special Configuration. *S. K. Dimitrov, A. S. Luts'ko, and S. G. Mikhin.* **1979, No. 4, 911 [29].**

Dual Accelerators of the ÉLV Type. *A. I. Grishchenko, B. M. Korabel'nikov, S. A. Kuznetsov, G. S. Krainov, N. K. Kuksanov, R. A. Salimov, and A. N. Samoilovich.* **1980, No. 3, 556 [21].**

Generator of Relativistic Electron Beams of Nanosecond Duration. *S. Ya. Belomyttsev, A. A. Kim, N. G. Kolganov, Yu. A. Kotov, V. I. Koshelev, K. N. Sukhushin, and M. N. Timofeev.* **1981, No. 2, 309 [22].**

A Cyclic Inductive Accelerator of Electrons. *M. S. Khvastunov.* **1981, No. 3, 574 [20].**

Passive Resonator for the Acceleration of the Electron Beam of a Traveling-Wave Linear Accelerator. *V. M. Grizhko, A. A. Rakityanskii, L. A. Terekhov, G. L. Fursov, and A. M. Shenderovich.* **1982, No. 1, 32 [36].**

A Pulsed Electron Accelerator with Extraction of a Broad Beam into the Atmosphere. *M. A. Abroyan, P. M. Bogomazov, S. F. Zverev, S. L. Kosogorov, V. A. Lagutin, V. A. Rodichkin, A. D. Susarov, G. M. Tokarev, and K. A. Sharkov.* **1982, No. 5, 1065 [28].**

Small Pulsed High-Frequency Single-Resonator Electron Accelerator. *V. S. Panasyuk, Yu. K. Samoshenkov, and M. F. Simanovskii.* **1983, No. 4, 767 [31].**

Nanosecond Accelerator for Generating Ion and Electron Beams. *D. R. Akerman, S. N. Volkov, Ya. I. Krasik, A. V. Petrov, V. G. Tolmacheva, and A. M. Tolopa.* **1983, No. 4, 770 [34].**

The Development of Sealed-Off Linear Waveguide Electron Accelerators. *E. V. Suvorov and A. I. Khaustov.* **1983, No. 5, 1001 [11].**

High-Frequency Section of the "Troll" Electron Synchrotron with Cyclotron Preacceleration. *V. S. Panasyuk, Yu. M. Tereshkin, and V. B. Khromchenko.* **1984, No. 1, 20 [30].**

Quasistationary Injector with Plasma Electron Emitter. *V. N. Glazunov, V. G. Grechanyi, and A. S. Metel'.* **1984, No. 2, 411 [146].**

Continuous-Action Electron Accelerator Based on Secondary Ion-Electron Emission. *M. A. Abroyan, N. A. Uspenskii, and V. P. Fedyakov.* **1984, No. 4, 805 [24].**

Measurement of Currents of Strong Electron Beams of Nanosecond Duration. *N. G. Pavlovskaya and S. L. El'yash.* **1984, No. 5, 1174 [118].**

Experience with Operational Control of the Cross Section of an Electron Beam in a Synchrotron. *V. A. Orlov, K. N. Shorin, and A. S. Yarov.* **1985, No. 2, 286 [24].**

Window for Vacuum-to-Atmosphere Electron-Beam Extraction. *A. V. Dvurechenskii and B. P. Kashnikov.* **1985, No. 3, 531 [29].**

Accelerating Tube of Pulse Electron Accelerator. *V. T. Astrelin, V. S. Nikolaev, A. V. Smirnov, and M. A. Shcheglov.* **1985, No. 5, 1015 [30].**

Subnanosecond Fast-Electron-Beam-Generator. *V. I. Matakov and V. A. Moskvichev.* **1985, No. 5, 1146 [143].**

Linear Induction Accelerator. *V. V. Vasil'ev, G. G. Kanaev, and É. G. Furman.* **1985, No. 6, 1253 [19].**

Control of Radio-Frequency Characteristics of Linear Electron Accelerator. *A. N. Filatov and V. K. Shilov.* **1985, No. 6, 1258 [23].**

Approximations of Kilpatrick's Criterion. *I. M. Kapchinskii.* **1986, No. 1, 31 [33].**

Use of Internal Beam of Electron Synchrotron to Study Electron-Nuclear and Photonuclear Reactions. *Yu. M. Volkov, G. A. Kolomenskii, E. F. Lakovichev, V. P. Fominenko, and V. P. Chizhov.* **1986, No. 4, 789 [31].**

Specifications of "Elektron" Setup. *D. S. Bagdasaryan, E. M. Boyakhchyan, G. B. Kazaryan, M. D. Karibyan, E. R. Markaryan, G. G. Mkrtchyan, and I. A. Troshenkova.* **1986, No. 5, 1021 [36].**

Foils for Exit Windows of Industrial Electron Accelerators with Increased Current Density. *E. S. Machurin, G. I. Klenov, V. V. Vladimirov, S. A. Gus'kov, V. P. Kulichenko, N. A. Mel'nikova, L. M. Pachkalin, and P. V. Petrenko.* **1987, No. 2, 264 [22].**

Experiments in Profound Deceleration of a Monoenergetic Electron Beam. *V. S. Gorshkov and O. Yu. Naguchev.* **1987, No. 3, 517 [26].**

Compact Primary Converter for Energy and Flux Density of Accelerated Electrons. *K. A. Vinogradov, A. V. Gubanov, and A. M. Tron'.* **1987, No. 3, 520 [28].**

Pulsed Electron Accelerator. *B. A. Azimdzhanov, T. U. Arslanbekov, and V. E. Chekalin.* **1987, No. 4, 770 [21].**

Study of Loading by Beam of Dual-Resonator Structure of Linear Electron Accelerator. *O. S. Milovanov and I. A. Smirnov.* **1987, No. 5, 1032 [22].**

Compact Electron Accelerator with Multipoint Explosive-Emission Cathode. *Yu. A. Vasilevskaya, M. A. Vasilevskii, I. M. Roife, E. V. Seredenko, K. I. Finkel'shtein, and S. P. Yakovlev.* **1988, No. 1, 1 [7].**

Compact 150-keV Nanosecond Electron Accelerator. *B. Z. Movshevich.* **1988, No. 1, 5 [10].**

VÉUS-1 Broad-Beam Radio-Frequency Electron Accelerator. *A. M. Ovcharov, V. N. Kondrat'ev, and G. B. Kolpakov.* **1988, No. 3, 535 [22].**

Calculation of Mechanical Stresses in Electron Exit-Window Foils in Industrial Accelerators. *V. V. Vladimirov, A. L. Gritskevich, V. V. Davidovskii, N. P. Kulish, E. S. Machurin, N. A. Mel'nikova, and S. P. Repetskii.* **1988, No. 3, 544 [29].**

Microsecond Electron Accelerator for Surface Treatment of Materials. *E. P. Bol'shakov, O. L. Komarov, A. V. Lazarenko, O. P. Pecherskii, E. S. Chebukov, and V. I. Engel'ko.* **1988, No. 6, 1381 [18].**

Scanning System for High-Energy Pulsed Electron Beam. *A. M. Rozenblat.* **1989, No. 1, 44 [46].**

The RADAN Series of Compact High-Current Periodic-Pulse Electron Accelerators. *F. Ya. Zagulov, A. S. Kotov, V. G. Shpak, Ya. Ya. Yurike, and M. I. Yalandin.* **1989, No. 2, 420 [146].**

X-ray Diagnosis for Study of the Space-Time Characteristics of High-Current Relativistic Electron Beams. *N. I. Zaitsev, E. V. Ilyakov, Yu. V. Rodin, E. I. Soluyanov, M. Yu. Shmelev, and V. V. Yastrebov.* **1989, No. 2, 424 [150].**

Apparatus for Study of the Space-Time Structure of Nanosecond Electron Beams. *K. V. Aleksandrovich, I. A. Berezin, M. A. Kumpan, S. I. Lobov, N. G. Pavlovskaya, and S. P. Pukhov.* **1989, No. 3, 513 [23].**

Study of Formation of Tubular Electron Beam. *A. M. Artamoshkin, A. K. Berezin, B. N. Zinchenko, and Yu. M. Lyapkalo.* **1989, No. 4, 773 [39].**

Use of Passive Resonators for Stabilization of Beam Parameters of Linear Electron Accelerators. *V. A. Vishnyakov, V. V. Zakutin, V. A. Kushnir, V. P. Romas'ko, G. L. Fursov, and A. M. Shenderovich.* **1989, No. 5, 1023 [50].**

Formation of Multipole Magnetic Fields for Slow Extraction of Electrons from Weak-Focusing Fourth-Order-Resonance Synchrotron. *Yu. A. Bashmakov.* **1989, No. 6, 1279 [44].**

Electron Accelerator with Variable Energy and Pulse Duration. *B. P. Aduev and V. G. Shpak.* **1990, No. 2, 280 [49].**

Beam Scanning of Linear Resonance Electron Accelerator in Passive-Resonator Chain. *A. I. Zykov, V. A. Kushnir, V. P. Romas'ko, G. L. Fursov, and A. M. Shenderovich.* **1990, No. 2, 283 [52].**

Device for X-Ray Diagnosis of Radial Distribution of Electron-Beam Density. *V. M. Duvidzon, O. S. Markevich, V. V. Svintsov, V. I. Smilga, A. B. Timokhin, and D. M. Shafranov.* **1990, No. 3, 693 [192].**

1.5-MV Nanosecond Electron Accelerator with Sealed Tube. *S. I. Lobov, N. G. Pavlovskaya, and S. P. Pukhov.* **1991, No. 2, 262 [35].**

Compact 150-kV Electron Accelerator. *G. M. Kassirov, F. G. Sekisov, and N. N. Shumilova.* **1991, No. 2, 419 [171].**

Electron-Beam Injector. *G. G. Kanaev and É. G. Furman.* **1991, No. 5, 1127 [133].**

1.1.1. Betatrons and microtrons

Pulsed Power Supply System to Betatron Electromagnet. *V. V. Vasil'ev and É. G. Furman.* **1977, No. 3, 634 [24].**

Betatron with Magnetic Excitation. *V. V. Vasil'ev, V. A. Moskalev, and E. G. Furman.* **1979, No. 4, 908 [27].**

Gamma Bremsstrahlung from a Thin Target of a Betatron. *B. I. Goryachev, E. S. Krylov, O. P. Shevchenko, and V. V. Ekivin.* **1979, No. 4, 922 [40].**

Design and Characteristics of a Microtron in the 5-cm Range. *M. A. Zakharov, V. N. Melekhin, and V. Ya. Sukhachev.* **1979, No. 6, 1509 [30].**

System for Slow Discharge of a Betatron Electron Beam. *Yu. V. Kuznetsov, E. V. Lazutin, Yu. A. Novikov, and I. M. Piskarev.* **1980, No. 1, 18 [25].**

Alignment of Directions of Bremsstrahlung and Electron Radiations from a Betatron. *V. V. Kashkovskii.* **1980, No. 1, 21 [28].**

Injector for a Betatron Based on an Impregnated Cathode. *V. V. Varlamov, B. S. Ishkhanov, B. A. Nadtochii, I. M. Piskarev, and S. P. Rakitin.* **1980, No. 1, 23 [30].**

Combined System for Stabilizing the Bremsstrahlung Intensity of a Betatron. *Yu. V. Kuznetsov, Yu. A. Novikov, and I. M. Piskarev.* **1980, No. 2, 330 [41].**

Directional Coupler in the Waveguide Channel of a Continuously Operated Microtron. *V. A. Slobodyanyuk and V. M. Kondrat'ev.* **1980, No. 5, 1077 [23].**

Digital-to-Analog Converter for the Control System of Betatron Energy. *S. N. Belyaev, A. B. Kozin, V. A. Semenov, and A. A. Nechkin.* **1980, No. 6, 1335 [18].**

System for the Stabilization and Control of the Betatron Energy. *A. P. Kozin, V. A. Semenov, S. N. Belyaev, and A. A. Nechkin.* **1981, No. 1, 16 [21].**

Study of the Possibility of External Injection in a Microtron. *Z. N. Esina, V. M. Kuznetsov, and N. A. Lashuk.* **1981, No. 3, 579 [24].**

Magnetic System of Betatron with Auxiliary Magnetization. *V. V. Vasil'ev and E. G. Furman.* **1982, No. 1, 26 [30].**

Betatron Energy Stabilization System. *Yu. V. Kuznetsov, E. V. Lazutin, Yu. A. Novikov, and V. M. Sorvin.* **1982, No. 6, 1333 [21].**

Small-Size 8-MeV Microtron for the 3-cm Range. *I. P. Petryaev, V. I. Polyakov, and F. V. Rodionov.* **1983, No. 4, 764 [29].**

6.5-MeV Microtron with External Injection. *E. G. Gal', V. N. Eponeshnikov, and N. A. Lashuk.* **1985, No. 1, 18 [24].**

Injection System for Small Betatron. *V. P. Zvorygin, V. S. Pushin, and V. L. Chakhlov.* **1985, No. 1, 26 [31].**

Compact Betatron with Four Controlling-Field Periodicity Elements. *V. L. Chakhlov, V. S. Pushin, G. I. Burov, A. A. Zvontsov, V. P. Zvorygin, and Yu. D. Zrelov.* **1986, No. 4, 787 [29].**

Microtron with Adjustable Accelerated-Electron Energy. *V. I. Gridnev, E. I. Rozum, A. M. Slupskii, and S. A. Vorob'ev.* **1987, No. 1, 16 [20].**

Quadrupole Lens for Sectional Microtron. *B. S. Ishkhanov, A. B. Savitskii, M. A. Sotnikov, and V. I. Shvedunov.* **1987, No. 5, 1046 [33].**

Thyristor Current-Pulse Generator for Betatron Electromagnet with Independent Low-Voltage Supply. *B. A. Baginskii, V. N. Makarevich, and M. M. Shtein.* **1988, No. 4, 832 [16].**

Device for Measurement of Circulating Current in Betatron. *A. K. Grenaderov.* **1989, No. 5, 1028 [55].**

Electromagnet for Microtron with Increased Accelerated-Electron Energy. *V. N. Melekhin.* **1990, No. 2, 290 [57].**

Expansion of Working Region of Microtron Magnetic Field. *V. M. Aleshin, A. V. Dronin, and V. I. Lebedev.* **1990, No. 3, 525 [50].**

Device for Intrachamber Specimen Irradiation by Gamma Bremstrahlung from 30-MeV Microtron. *V. N. Samosyuk and M. Fedorov.* **1990, No. 4, 754 [43].**

Efficient Microtron Acceleration Mode. *V. M. Aleshin and A. V. Doronin.* **1991, No. 1, 26 [43].**

1.1.2. High-current accelerators

Obtaining Heavy Current Electron Beams (Survey). *V. P. Smirnov.* **1977, No. 2, 337 [7].**

Heavy-Current Nanosecond Pulse Electron and Bremsstrahlung Generator. *A. P. Gridasov, K. F. Zelenskii, N. V. Kamyshov, N. K. Plekhov, A, I. Sazanov, I. A. Troshkin, and V. A. Tsukerman.* **1977, No. 1, 210 [184].**

Increasing Electron Beam Power by Inductive Accumulator. *P. I. Blinov, G. I. Dolgachev, and D. N. Lin.* **1977, No. 2, 368 [35].**

High-Current Pulsed Electron Accelerator for Stimulation of Compressed Gases. *A. N. Bastrikov, B. M. Koval'chuk, N. G. Kolganov, I. N. Konovalov, and Yu. A. Kotov.* **1977, No. 5, 1268 [38].**

60-keV High-Current Pulsed Electron Accelerator. *Yu. L. Bakshaev and É. Z. Tarumov.* **1978, No. 1, 8 [11].**

High-Voltage Pulsed Modulator of Strong-Current Electron Accelerator. *O. A. Gusev, V. B. Markov, E. M. Mellekh, A. S. Perlin, O. P. Pecherskii, M. Yu. Polyanskii, and G. A. Spitsyn.* **1978, No. 5, 1186 [32].**

Microsecond High-Current Electron-Beam Accelerator. *V. A. Burtsev, M. A. Vasilevskii, O. A. Gusev, I. M. Roife, E. V. Seredenko, and V. I. Éngel'ko.* **1979, No. 5, 1223 [32].**

"Minus" Pulsed, High-Current, Nanosecond, Electron Accelerator. *I. B. Dzhelepov, G. E. Gladyshev, B. T. Plachenov, B. N. Pugachev, O. S. Sirotyuk, Yu. V. Terent'ev, V. A. Rodichkin, and K. I. Finkel'shtein.* **1980, No. 2, 327 [38].**

Charging Device for Small-Scale High-Current Electron Accelerator. *K. A. Zheltov, A. V. Malygin, V. I. Rozov, and V. F. Shalimanov.* **1980, No. 3, 704 [149].**

Device for Extracting and Transporting a High-Current Electron Beam in Longitudinally Inhomogeneous Plasma. *A. V. Petrov, A. I. Ryabchikov, A. V. Tuzov, and Yu. P. Usov.* **1980, No. 5, 1075 [21].**

Instrument for the Digital Coding of Current and Voltage Pulses of a High-Current Accelerator of Relativistic Electrons. *B. A. Demidov, I. F. Kozlov, and N. A. Klepikov.* **1980, No. 5, 1086 [31].**

High-Current Nanosecond Accelerator for the Investigation of Rapid Processes. *B. M. Koval'chuk, G. A. Mesyats, B. N. Semin, and V. G. Shpak.* **1981, No. 4, 842 [15].**

Nanosecond High-Current Electron Accelerator with Stable Energy ~1 MeV. *K. A. Zheltov, A. V. Malygin, V. I. Rozov, and V. F. Shalimanov.* **1981, No. 5, 1118 [23].**

High-Voltage Pulse Modulator of INUS-2 High-Current Electron Accelerator. *O. A. Gusev, V. G. Kovalev, V. B. Markov, E. M. Mellekh, E. P. Pavlov, O. P. Pecherskii, M. Yu. Polyanskii, and B. A. Stekol'nikov.* **1981, No. 5, 1122 [27].**

The "Gnom" Low-Impedance Electron-Beam Generator. *A. Yu. Kropotov, V. T. Kolesnik, and V. V. Chernyi.* **1983, No. 2, 267 [26].**

Nanosecond High-Current Electron Accelerator. *N. G. Beruchev, E. P. Bol'shakov, V. V. Vecherkovskii, O. A. Gusev, A. S. Ivanov, Yu. A. Istomin. Yu. V. Koba, V. A. Kulaev, G. M. Latmanizova, V. P. Pevchev, A. S. Perlin. O. P. Pecherskii, V. P. Smirnov, L. V. Smirnov, L. E. Frolov, V. I. Chetvertkov, and I. R. Yampol'skii.* **1983, No. 6, 1259 [14].**

Detector for Measuring the Current Density of a High-Current Microsecond Beam. *A. G. Nikonov, Yu. M. Savel'ev, and V. I. Éngelko.* **1984, No. 1, 29 [37].**

High-Current Electron Accelerator. *B. V. Alekseev, I. M. Gorelikov, V. I. Kazurov, L. V. Mashkov, A. G. Oreshko, G. I. Soklakov, A. I. Fedorenko, and K. B. Yurkevich.* **1984, No. 5, 1060 [19].**

Multichannel Ring Commutator for High-Current Accelerators. *I. F. Isakov, E. I. Logachev, and G. E. Remnev.* **1984, No. 5, 1062 [21].**

Subnanosecond High-Current Electron Accelerator. *K. A. Zheltov and A. N. Petrenko.* **1985, No. 5, 1012 [27].**

Synchronized High-Current Accelerators for Irradiation of Solids by Electron-Electron and Electron-X-Ray Beams. *D. I. Vaisburd, B. N. Semin, E. S. Serobyan, and V. A. Trofimov.* **1986, No. 6, 1389 [135].**

Measurement of Spectrum of X-Radiation Generated in Diode of High-Current Accelerator. *A. Yu. Kropotov, O. N. Morgun, and V. V. Chernyi.* **1987, No. 2, 255 [15].**

Study of Operation of High-Current Nanosecond Accelerator with Inductor Section. *V. M. Bystritskii, I. B. Ivanov, Ya. E. Krasik, A. V. Petrov, V. G. Tolmacheva, and E. G. Furman.* **1987, No. 5, 1029 [19].**

Errors in Determination of Current of High-Current Electron Beam. *N. A. Kondrat'ev, G. I. Kotlyarevskii, V. I. Smetanin, and Yu. P. Surikov.* **1988, No. 2, 283 [25].**

Magnetically Isolated Diode for Production of Dense Monoenergetic Electron Beam of Nanosecond Duration. *P. Ya. Isakov, A. V. Kozhevnikov, V. A. Lukin, and V. S. Pak.* **1988, No. 2, 285 [27].**

Extraction of Developed Electron Beam with Current of up to 100 mA. *N. K. Kuksanov, R. A. Salimov, and V. G. Cherepkov.* **1988, No. 4, 838 [20].**

High-Current Periodic-Pulse Electron Accelerator with Highly Stable Electron-Beam Parameters. *N. M. Bykov, V. P. Gubanov, A. V. Gunin, F. Ya. Zagulov, S. D. Korovin, and A. F. Yakushev.* **1989, No. 1, 33 [37].**

"Gamma" High-Current Electron Accelerator. *A. N. Bastrikov, S. P. Bugaev, M. I. Vorob'yushko, A. A. Dul'zon, G. M. Kassirov, B. M. Koval'chuk, V. A. Kokshenev, V. I. Koshelev, V. I. Manylov, G. A. Mesyats, A. A. Novikov, V. G. Podkovyrov, Yu. F. Potalitsyn, K. N. Sukhushin, M. N. Timofeev and V. P. Yakovlev.* **1989, No. 2, 287 [36].**

Picosecond High-Current Electron Accelerator. *K. A. Zheltov, S. A. Korobkov, A. N. Petrenko, and V. F. Shalimanov.* **1990, No. 1, 17 [37].**

VIRA-1.5M Compact Bremsstrahlung Generator with Dose Rate of 5×10^7 A/kg. *Yu. A. Kotov, S. Yu. Sokovnin, and A. L. Filatov.* **1990, No. 2, 399 [149].**

Adjustment of High-Current Injection Channel of Linear Accelerator of Meson Factory. *O. S. Kuz'min, A. N. Mirzoyan, and P. N. Ostroumov.* **1990, No. 3, 527 [52].**

Production of Picosecond Electron Pulse in High-Current Linear Accelerator. *N. V. Zav'yalov, I. A. Ivanin, V. I. In'kov, N. P. Sitnikov, A. V. Tel'nov, Yu. A. Khokhlov, A. V. Galkin, and A. V. Grigorenko.* **1990, No. 3, 532 [56].**

Sigma-05 Pulsed High-Current Gas-Filled Multibeam Accelerator. *V. V. Glebov and D. N. Novichkov.* **1990, No. 4, 885 [155].**

Periodically Pulsed High-Current Electron Accelerator. *V. M. Borisov, I. E. Bragin, A. A. Dmitriev, M. A. Sandomirov, and V. F. Tolstov.* **1990, No. 5, 1146 [162].**

High-Current Nanosecond Electron Accelerator with 1-kHz Pulse-Repetition Frequency. *N. M. Bykov, V. N. Ivanov, S. D. Korovin, S. D. Polevin, and A. M. Roitman.* **1991, No. 2, 266 [38].**

Compact High-Current Nanosecond Accelerator with 1.5-MeV Electron Energy. *O. A. Vashaev, V. P. Gubanov, and S. D. Korovin.* **1991, No. 2, 269 [41].**

1.2. Proton accelerators

Conference on Proton Linear Accelerators, Chalk River, Canada (Review of Papers). *N. V. Lazarev.* **1977, No. 1, 70 [64].**

Recapture and Moderation of Protons on the Decay of the Magnetic Field in the Accelerator of the Institute of High-Energy Physics. *G. G. Gurov.* **1978, No. 3, 570 [19].**

New System of Coupling the Frequency of the Accelerating Voltage with the Magnetic Field in the Synchrophasotron at the Joint Institute of Nuclear Physics. *A. I. Mikhailov, G. P. Puchkov, and A. P. Tsarenkov.* **1978, No. 5, 1174 [21].**

Channel for Electronic Cooling of a Proton Beam for Injection into a Linear Accelerator. *V. A. Batalin.* **1979, No. 1, 25 [28].**

Energy Calibration of the ÉGP-10M Accelerator. *S. P. Simakov, V. I. Spirin, A. M. Trufanov, and G. N. Lovchikova.* **1979, No. 5, 1227 [36].**

System for Shaping Proton Beams of Micron Size. *S. N. Andrianov, A. D. Dymnikov, and G. M. Osetinskii.* **1982, No. 1, 36 [39].**

Measuring the Intensity of a Proton Beam and the Efficiency of Slow Beam Extraction. *É. A. Lyudmirkii and É. A. Merker.* **1983, No. 3, 520 [28].**

Dependence of the Transverse Particle Motion upon the Longitudinal Motion and Filtering of the Phase Volume of the Beam in Linear Proton Accelerators. *V. S. Kabanov, S. A. Lukshin, and A. P. Fedotov.* **1984, No. 4, 820 [37].**

Compact Proton Accelerator. *V. S. Panasyuk, Yu. K. Samoshenkov, M. F. Simanovskii, and V. V. Filimonov.* **1984, No. 5, 1171 [115].**

Relativistic-Positronium Channel of Accelerator at Institute of High-Energy Physics. *K. I. Gubrienko, M. M. Zaitsev, V. E. Zelenin, V. I. Kotov, Yu. A. Lastochkin, E. A. Lyudmirskii, V. L. Rybkov, B. A. Serebryakov, A. I. Grigor'ev, A. V. Kuptsov, L. L. Nemenov, E. E. Polbennikov, and L. M. Smirnov.* **1987, No. 1, 23 [26].**

"Uran" Linear Resonance Proton Accelerator for Applications. *O. A. Val'dner, V. F. Gass, A. A. Glazkov, A. D. Kolyaskin, A. I. Krivonosov, V. N. Leonov, N. R. Lobanov, and O. S. Milovanov.* **1988, No. 5, 1118 [31].**

Pulsed Proton Accelerator with Variable Current. *V. I. Batkin, V. N. Getmanov, I. M. Ikryanov, and O. Ya. Savchenko.* **1991, No. 2, 252 [27].**

1.3. Ion accelerators

Shaping Short Bunches of H^- Ions at Entrance of Linear Accelerator. *S. A. Lukshin, V. P. Tkach, and A. P. Fedotov.* **1977, No. 5, 1271 [40].**

Magnetically Hard Quadrupole Lenses for Drift Tubes of Ion Linear Accelerators. *I. M. Kapchinskii, A. M. Kozodaev, N. V. Lazarev, and V. S. Skachkov.* **1977, No. 5, 1273 [42].**

Methods of Increasing the Intensity of a Beam of Heavy Ions in a Synchrotron. *I. A. Shukeilo.* **1978, No. 2, 293 [27].**

Filtering of the Six-Dimensional Phase Volume of a Beam in a Linear Ion Accelerator. *A. P. Fedotov, S. A. Lukshin, and V. V. P'yankov.* **1978, No. 3, 573 [22].**

Accelerating Resonator for an Ion Synchrotron. *I. I. Averbukh.* **1978, No. 4, 848 [19].**

High-Precision Ion Accelerator. *G. I. Primenko, V. I. Strizhak, Yu. I. Usikov, and I. V. Estulin.* **1978, No. 5, 1178 [25].**

Improvement of Acceleration of Heavy Ions by the ÉGP-10-1 Tandem Generator. *M. Friedrichs and R. Grünzel.* **1980, No. 1, 33 [39].**

A 200-keV Heavy Ion Accelerator for Work in Solid State Physics. *A. M. Markus, V. F. Udovenko, M. V. Zinov'ev, V. A. Rykov, and V. I. Momot.* **1980, No. 4, 829 [22].**

Multibeam Heavy Ion Accelerator with Phase-Variable Focusing. *V. V. Kushin, B. P. Murin, and P. A. Fedotov.* **1981, No. 2, 312 [25].**

Heavy-Ion Accelerator for a 1-MeV Energy. *V. V. Bezuglyi, M. Yu. Bredikhin, V. F. Zelenskii, B. P. Il'enko, I. M. Neklyudov, and V. K. Khorenko.* **1981, No. 5, 1114 [19].**

Cyclic Induction Ion Accelerator. *M. S. Khvastunov.* **1982, No. 1, 29 [33].**

Heavy-Ion Accelerator. *E. I. Logachev, G. E. Remnev, and Yu. P. Usov.* **1983, No. 1, 16 [21].**

Ion-Optical Investigations of the Acceleration of Heavy Ions in the ÉGP-10-1 Tandem Generator. *M. Friedrich.* **1983, No. 3, 517 [25].**

Nanosecond Accelerator for Generating Ion and Electron Beams. *D. R. Akerman, S. N. Volkov, Ya. I. Krasik, A. V. Petrov, V. G. Tolmacheva, and A. M. Tolopa.* **1983, No. 4, 770 [34].**

A System for Shaping and Focusing a High-Current Beam of Deuterium Ions. *A. S. Belov.* **1984, No. 2, 272 [20].**

High-Frequency System in the Joint Institute of Nuclear Research Synchrophasotron for Accelerating Light Nuclei. *O. I. Brovko, A. I. Mikhailov, and K. V. Chekhlov.* **1984, No. 4, 814 [32].**

Pulsed System for Reducing the Repetition Frequency of Particle Bunches in a Cyclotron Beam. *I. I. Zalyubovskii, A. V. Kuznichenko, V. N. Lebedev, A. I. Levon, and G. M. Onishchenko.* **1984, No. 4, 823 [40].**

Fiber Optic Communication Line in the Ion Current Control System of the I-100 Linear Accelerator. *Yu. L. Bessonov, A. I. Vagin, V. M. Vatutin, G. G. Gurov, N. E. Detinenko, A. F. Dunaitsev, A. A. Ivanov, O. P. Lebedev, G. T. Pak, S. I. Pilipenko, V. M. Firsov, and M. D. Khodakovskii.* **1984, No. 6, 1326 [27].**

Accelerating System for Hollow Ion Beams. *V. A. Vlasov, N. M. Gavrilov, R. K. Gavrilova, and V. V. Rassadin.* **1985, No. 1, 22 [27].**

Elimination of Ion Losses in EGP-10-1 Charge-Exchange Accelerator. *M. Friedrich.* **1986, No. 4, 792 [33].**

High-Intensity Periodic-Pulse Ion Accelerator Based on Vacuum Arc. *N. M. Arzubov, G. P. Isaev, and A. I. Ryabchikov.* **1988, No. 5, 1114 [28].**

Direct-Action Ion Accelerator with Accelerating Potential of ~1 MV. *M. E. Veis, V. G. Dudnikov, R. A. Salimov, V. G. Cherepkov, and A. L. Shabalin.* **1989, No. 2, 294 [41].**

Precision Measurement of Energy of Accelerated Continuous Ion Beam. *P. N. Ostroumov, S. A. Petronevich, A. V. Feshchenko, and S. I. Sharamentov.* **1990, No. 2, 287 [55].**

1.3.1. Cyclotrons

Diagnosis of Particle Beams in Cyclotrons (Review). *V. A. Rezvov and L. I. Yudin.* **1990, No. 6, 1239 [20].**

Modernization of the 120-cm Cyclotron. *L. A. Sarkisyan, E. F. Kiryanov, and Yu. A. Vorob'ev.* **1979, No. 1, 15 [19].**

Controlling Both the Amplitude and the Phase of the First Harmonic of the Magnetic Field in an Isochronous Cyclotron. *A. G. Volkovich, V. D. Dvornikov, S. T. Latushkin, V. A. Rezvov, and L. I. Yudin.* **1980, No. 5, 1081 [26].**

Ion Source with Increased Temporal Stability for Cyclotrons. *E. M. Bel'skii, G. A. Kosinov, I. G. Lagutin, O. F. Nemets, L. I. Romanyuk, N. E. Svavil'nyi, V. M. Slobodyan, and V. V. Ustalov.* **1980, No. 6, 1336 [19].**

A Precision Current Stabilizer for the Main Winding of a Cyclotron for Use in a Multicoupled Control System. *V. I. Sakhno, P. P. Teplov, and V. G. Tsyvinskii.* **1982, No. 5, 1067 [30].**

Measurement of the Energy of the Proton Beam in the U-240 Cyclotron. *V. I. Grantsev, I. P. Dryapchenko, G. N. Kozeratskaya, V. I. Konfederatenko, V. A. Kornilov, O. F. Nemets, Yu. V. Patlan', B. A. Rudenko, M. V. Sokolov, V. A. Stepanenko, B. G. Struzhko, and H. Guracz.* **1983, No. 1, 19 [24].**

Minimization of Current Losses in the Injection Channel of an Electron Cyclotron. *V. N. Anosov, Yu. N. Denisov, Z. Hickman, V. Yu. Linneman, and G. Pich.* **1983, No. 1, 23 [27].**

Diagnosis of Multiple Passage through a Thin Internal Target in a Cyclotron. *I. Ya. Barit, L. N. Katsaurov, L. P. Nechaeva, and Yu. K. Khokhlov.* **1985, No. 4, 761 [28].**

A Target Device for Making Radionuclides in a Cyclotron. *A. N. Gushchin, O. N. Kolesnikov, V. I. Novikov, V. A. Shabrov, L. A. Kiseleva, V. P. Kozlov, N. A. Konyakhin, and N. N. Krasnov.* **1986, No. 6, 1282 [42].**

Time Referencing to Particle Bunches in Cyclotron Beam. *A. V. Kuznichenko and V. N. Lebedev.* **1987, No. 5, 1049 [35].**

Control of Cyclotron-Beam Particle Energy by Gas Absorber. *S. V. Artemov, B. I. Islamov, V. N. Kadushkin, N. A. Kakurina, Z. Pak, G. A. Radyuk, A. N. Sukmanov, and I. I. Trinkin.* **1988, No. 4, 835 [18].**

1.4. Accumulators

System for Measurement of the Parameters of the Electron Ring of a Heavy-Ion Accelerator by the Synchrotron Radiation. *T. V. Bespalova, I. A. Golutvin, N. I. Zamyatin, Yu. T. Kiryushin, N. M. Lustov, A. A. Mal'tsev, A. A. Popov, V. P. Sarantsev, V. A. Svidirov, D. A. Smolin, V. S. Rhabarov, and Yu. A. Yatsunenko.* **1979, No. 1, 18 [22].**

Stabilization of Longitudinal Instabilities in Heavy-Ion Storage Rings. *P. R. Zenkevich and D. G. Koshkarev.* **1982, No. 4, 817 [36].**

Measurement of Parameters of Electron-Ion Storage Rings. *V. D. Inkin, A. A. Mozelev, and V. P. Sarantsev.* **1982, No. 5, 1074 [36].**

Measurement of the Number of Electrons in Electron Rings from Infrared Synchrotron Radiation. *Yu. M. Volkov, A. A. Mal'tsev, V. A. Sviridov, V. P. Fominenko, and V. P. Chizhov.* **1982, No. 5, 1080 [40].**

Superconducting Spiral Undulator for Measuring the Radiation Polarization Colliding Beams in the VÉPP-2M Electron-Positron Storage Ring. *V. V. Anashin, G. Ya. Kezerashvili, A. P. Lysenko, E. A. Perevedentsev, and Yu. M. Shatunov.* **1986, No. 6, 1267 [30].**

System for Automatic Measurement of Beam Dimensions in Electron Accumulator. *A. Yu. Zelinskii and V. V. Teslenko.* **1987, No. 5, 1056 [41].**

1.5. Structural elements of accelerators

Wide-Band Mirror Optical Pathway for Electron-Ring Diagnostics Using Synchrotron Radiation. *G. I. Belinskaya, A. S. Dubovik, Yu. T. Kiryushin, A. A. Mal'tsev, and B. M. Stepanov.* **1977, No. 4, 950 [27].**

Effects Resulting in Intensification of Beams of Synchrotron Radiation. *Z. L. Artem'eva, E. M. Moroz, and K. N. Shorin.* **1981, No. 3, 582 [27].**

Influence of Beam of Synchrotron Radiation on a Crystal Monochromator. *N. V. Andronova, A. N. Artem'ev, M. V. Zelepukhin, Yu. N. Kazakov, E. P. Stepanov, and A. I. Chechin.* **1985, No. 1, 40 [43].**

1.5.1. Electron sources (see also 11.3.1)

Portable Electron Gun for Investigating and Adjusting Particle Detectors. *S. V. Golovkin and A. M. Zaitsev.* **1977, No. 4, 944 [21].**

Operation of Strong-Current Electron Gun for the Microsecond Range. *V. S. Pak, Yu. P. Usov, N. I. Tsvetkov, and A. A. Shatanov.* **1978, No. 5, 1189 [34].**

Injector for a Betatron Based on an Impregnated Cathode. *V. V. Varlamov, B. S. Ishkhanov, B. A. Nadtochii, I. M. Piskarev, and S. P. Rakitin.* **1980, No. 1, 23 [30].**

Small Pulsed Source of Electrons with an Energy of 1-6 MeV. *G. V. Erofeeva and V. L. Chakhlov.* **1980, No. 5, 1084 [29].**

Ultrahigh Frequency Injector of Electrons. *E. M. Zakutov and G. A. Kirpichnikov.* **1981, No. 1, 19 [23].**

Study of the Possibility of External Injection in a Microtron. *Z. N. Esina, V. M. Kuznetsov, and N. A. Lashuk.* **1981, No. 3, 579 [24].**

A Positron Source for a Linear Accelerator. *V. I. Artemov, V. A. Vishnyakov, G. K. Dem'yanenko, S. A. Dobromirov, V. M. Kobezskii, F. A. Peev, and A. N. Fisun.* **1981, No. 5, 1124 [29].**

Electron Gun for Producing Two Intense-Current Beams. *A. R. Borisov, A. G. Zherlitsyn, G. V. Mel'nikov, and Yu. G. Shtein.* **1982, No. 2, 295 [19].**

High-Voltage Long-Focus Electron Gun. *N. N. Veniaminov, A. K. Kuzakov, and N. G. Rambidi.* **1982, No. 6, 1433 [108].**

Electron Gun with Plasma Emitter Made Up of Vacuum Arcs. *S. P. Bugaev, A. I. Klimov, and S. M. Chesnokov.* **1982, No. 6, 1436 [110].**

Electron Source Based on a Duoplasmatron. *Yu. N. Antonov and V. A. Konovalov.* **1983, No. 4, 932 [171].**

Design and Heating Characteristics of a Thermal Emission Cathode for Microtrons. *É. A. Luk'yanenko, Yu. E. Tokarev, V. N. Kovalev, A. A. Lyapin, and M. M. Chursin.* **1984, No. 4, 829 [44].**

Long-Pulse Electron Injector with Explosive Emission and Magnetic Insulation. *V. I. Artamonov, L. V. Dubovoi, V. M. Duvidzon, S. P. Kryuchkov, V. A. Maevskii, and V. I. Smilga.* **1985, No. 3, 523 [22].**

Trap-Control System for Polarized-Electron Source. *V. L. Agranovich, V. I. Beloglazov, V. P. Efimov, and V. S. Kuz'menko.* **1985, No. 3, 526 [25].**

Nanosecond Electron Injector. *I. V. Shebolaev, Yu. D. Chernousov, and V. I. Popov.* **1986, No. 2, 288 [29].**

Compact Pulsed Source of Nanosecond Electron Beams. *V. M. Karpov, Yu. G. Konev, V. V. Larin, V. M. Orlovskii, V. V. Osipov, and M. M. Shtein.* **1987, No. 1, 20 [23].**

Plasma Electron Source with Sectional Cold Hollow Cathode. *A. S. Metel'.* **1987, No. 1, 178 [164].**

Gas-Magnetron Electron Source. *A. P. Semenov and M. V. Mokhosoev.* **1987, No. 2, 398 [138].**

High-Current Pulsed Source of Nonrelativistic Electrons. *A. S. El'chaninov, B. A. Koval', G. A. Mesyats, D. I. Proskurovskii, and E. B. Yankelevich.* **1987, No. 5, 1149 [122].**

Portable Generator of Subnanosecond Fast-Electron Pulses. *N. V. Belkin, M. Yu. Tarakanov, and M. D. Tarasov.* **1987, No. 6, 1425 [133].**

High-Voltage Electron Source with Plasma Cathode and High Beam-Pulse Energy Density. *E. M. Oks and P. M. Shchanin.* **1988, No. 3, 715 [166].**

Electron Gun with Beam Cross Section of 1000 cm^2 and Current Density of up to 0.6 A/cm^2. *V. V. Baranov, A. A. Beloglazov, A. Yu. Dudin, D. A. Zayarnyi, S. G. Perlov, N. N. Ustinovskii, I. V. Kholin, and A. Yu. Chugunov.* **1989, No. 6, 1276 [41].**

Pulse-Packet Electron Injector for the Study of Rarefied Media. *B. A. Snedkov, L. V. Udalov, O. N. Ovodova, Yu. V. Gorokhov, and A. B. Snedkov.* **1990, No. 1, 25 [44].**

Electronically Heated Lanthanum-Hexaboride Injector for 3-cm Microtron. *A. Yu. Balaev, A. A. Vishnevskii, V. N. Dudkin, S. V. Rodionov, and V. P. Stepanchuk.* **1990, No. 6, 1419 [172].**

Dielectric Emitter in Injector of Linear Induction Electron Accelerator. *O. N. Tomskikh and É. G. Furman.* **1991, No. 5, 1130 [136].**

1.5.2. Ion sources (see also 11.2.1)

Electron-Cyclotron-Resonance Ion Sources (Review). *K. S. Golovanivskii and V. D. Dougar-Jabon.* **1991, No. 4, 739 [8].**

Surface-Ionization Ion Source for Mass Separator Operating on a Heavy-Ion Beam. *D. D. Bogdanov, I. Voborzhil, A. V. Dem'yanov, V. A. Karnaukhov, and L. A. Petrov.* **1977, No. 1, 19 [22].**

Plasma Beam Ion Source. *V. A. Saenko, A. I. Vladimirov, and Yu. P. Tret'yakov.* **1977, No. 3, 645 [34].**

Miniature Source of Slow Protons for Studying Efficiency of Their Focusing. *L. R. Voitsik and B. G. Erozolimskii.* **1977, No. 3, 649 [38].**

Ion Source with Pulsed Gas Emission. *V. A. Batalin, A. A. Kolomiets, B. K. Kondrat'ev, and R. P. Kuibida.* **1978, No. 3, 588 [35].**

Use of Mixtures of Hydrogen with Certain Gases to Increase the Proton Yield in a High-Frequency Ion Source. *A. M. Markus, V. F. Udovenko, and N. I. Velichko.* **1979, No. 2, 530 [220].**

Proton Beam Source. *V. L. Auslender, V. N. Lazarev, and A. D. Panfilov.* **1979, No. 4, 915 [33].**

Pulsed Ion Injector for an Electrostatic Accelerator Using Bunching in a Distributed Electric Field. *A. S. Belov, Yu. M. Burmistrov, and G. A. Yurchenkov.* **1979, No. 5, 1230 [39].**

Ion Source for the Investigation of Processes of Charge Exchange on Metal Atoms. *R. N. Gall', N. V. Kir'yakov, M. I. Markin, V. L. Tal'roze, and S. V. Tirkel'taub.* **1979, No. 5, 1381 [177].**

Influence of Cathode Materials on Discharge Parameters and the Yield of Multiply Charged Ions. *A. S. Pasyuk, V. B. Kutner, and Yu. P. Tret'yakov.* **1980, No. 1, 36 [41].**

Continuous 20-mA Source of Negative Hydrogen Ions with a Low Level of Beam-Current Pulsations. *M. D. Gabovich, Yu. N. Kozyrev, and A. P. Naida.* **1980, No. 2, 334 [45].**

Ion Source with Increased Temporal Stability for Cyclotrons. *E. M. Bel'skii, G. A. Kosinov, I. G. Lagutin, O. F. Nemets, L. I. Romanyuk, N. E. Svavil'nyi, V. M. Slobodyan, and V. V. Ustalov.* **1980, No. 6, 1336 [19].**

A Duoplasmotron for Obtaining Carbon Ions. *É. F. Chaikovskii, V. M. Puzikov, and A. V. Semenov.* **1981, No. 2, 460 [163].**

Density Distribution in a Pulsed Beam of Deuterons Collected from the Grid-Fixed Boundary of Plasma. *Yu. G. Bessarabskii, S. B. Ovsyannikov, and S. P. Sukhoveev.* **1981, No. 5, 1263 [154].**

Multiply Charged Metal Ion Source. *M. Yu. Bredikhin, V. F. Zelenskii, B. P. Il'enko, and V. K. Khorenko.* **1981, No. 6, 1489 [147].**

Arc Source with a Heated Gas Discharge Chamber for Generating Multiply Charged Metal and Gas Ions. *M. Yu. Bredikhin, B. P. Il'enko, and V. K. Khorenko.* **1983, No. 4, 776 [39].**

Increasing the Brightness of a Proton Beam from an Arc Source. *V. I. Vatkin, V. N. Getmanov, and O. Ya. Savchenko.* **1984, No. 1, 37 [44].**

Hollow-Cathode Negative-Hydrogen Ion Source Operated in the Stationary Mode. *S. P. Antipov, L. I. Elizarov, M. I. Martynov, and V. M. Chesnokov.* **1984, No. 4, 826 [42].**

Plasma Source of Ions. *A. P. Semenov.* **1984, No. 5, 1062 [23].**

Triple-Beam Negative Hydrogen-Ion Source Based on Water Vapor. *V. V. Parkhomchuk and N. Kh. Kot.* **1985, No. 1, 29 [34].**

The Proton Source in the Atom Injector for the Ambal Installation. *R. I. Davydenko, I. I. Morozov, G. V. Roslyakov, and V. Ya. Savkin.* **1986, No. 6, 1278 [39].**

Prototype of HELIOS-12 Source of Multiply Charged Ions. *K. S. Golovanivskii, V. D. Dugar-Zhabon, D. V. Reznikov, and S. A. Safonov.* **1987, No. 2, 273 [30].**

Surface-Plasma Source of Negative Hydrogen Ions. *G. E. Derevyankin and V. G. Dudnikov.* **1987, No. 3, 523 [31].**

Ion-optical System of Heavy-Ion Source for Time-of-Flight Measurements. *V. A. Batalin, B. K. Kondrat'ev, and V. I. Turchin.* **1987, No. 4, 785 [34].**

Production of Beam of Negative Hydrogen and Deuterium Ions from Source with Electron Cyclotron Resonance. *K. S. Golovanivskii, K. Dzhayamanna, and V. D. Dugar-Zhabon.* **1988, No. 2, 288 [29].**

Microprocessor Subsystem for Extremal Control of Beam Current of U-400 Cyclotron by Variation of Ion-Source Conditions. *A. A. Kas'yanov, V. B. Kutner, V. M. Rybin, A. M. Sukhov, Yu. P. Tret'yakov, V. G. Subbotin, and B. V. Fefilov.* **1989, No. 6, 1324 [82].**

Study of Source of Low-Energy Polarized Protons. *S. P. Agafonov, A. S. Belov, S. A. Kubalov, V. E. Kuzik, S. Yu. Merkulov, and E. E. Nesterenko.* **1990, No. 4, 889 [159].**

MEVVA Source of Multiply Charged Heavy Ions. *M. M. Kats, L. N. Kondrat'ev, N. N. Pomelov, and A. D. Rogal'.* **1991, No. 5, 1014 [37].**

1.5.3. Targets

Preparation of Thick Targets of Chromium Isotopes. *V. N. Medyanik and G. V. Shula.* **1977, No. 1, 289 [250].**

Apparatus for Measurement of High Nuclear Polarization of Targets. *Yu. F. Kiselev and V. N. Matafonov.* **1977, No. 5, 1289 [55].**

Microchemical Analysis of Thin Films by Elastic Scattering of ^{3}He. *Yu. Bukh, N. I. Balalykin, G. M. Osetinskii, and Wang Seng Ch'ang.* **1977, No. 5, 1295 [60].**

"Frozen" Polarized Proton Target. *N. S. Borisov, E. I. Bunyatova, Yu. F. Kiselev, V. N. Matafonov, B. S. Neganov, and Yu. A. Usov.* **1978, No. 2, 299 [32].**

Cryogenic Target Containing Liquid Helium, Hydrogen, and Deuterium. *L. B. Golovanov, V. L. Mazarskii, and A. P. Tsvinev.* **1978, No. 3, 593 [40].**

Making Thin Targets for Studying Reactions with Heavy Particles at Low Energies. *V. A. Stepanenko, L. N. Starodubtseva, O. Yu. Goryunov, V. N. Dobrikov, O. F. Nemets, and A. T. Rudchik.* **1978, No. 3, 596 [43].**

Charge-Exchange Sodium Target with Large Aperture. *B. A. D'yachkov, V. I. Zinenko, M. A. Pavlii, and V. Yu. Petrusha.* **1978, No. 5, 1191 [37].**

"Crystal" Goniometric Setup with Electronic Control System. *N. A. Agarkov, V. G. Gorbenko, Yu. V. Zhebrovskii, A. S. Zelencher, L. Ya. Kolesnikov, A. L. Rubashkin, and V. F. Chechetenko.* **1979, No. 2, 350 [57].**

Use of a Carbon Film to Generate Beams of Secondary Particles on Proton Synchrotrons. *L. L. Nemenov, Yu. A. Plis, V. M. Plotko, N. M. Tarakanov, and V. N. Chepegin.* **1980, No. 3, 580 [41].**

Cryogenic Hydrogen–Helium Target with a Large Aperture. *L. B. Golovanov, V. L. Mazarskii, and A. P. Tsvinev.* **1980, No. 3, 583 [44].**

Gas Target for Research on the Formation of Muon-Nucleon Atoms. *V. V. Govorov, Yu. P. Dobretsov, B. Zh. Zalikhanov, and A. M. Rogozhin.* **1980, No. 5, 1095 [40].**

Express Technique of Determining the Tritium Concentration in Tritium Targets. *V. I. Galkov, P. S. Otstavnov, I. G. Sheinker, and D. L. Shpak.* **1980, No. 6, 1343 [25].**

Apparatus for the Uniform Irradiation of Sample Surfaces with the Beam of Ions Extracted from an Accelerator. *G. I. Gusinskii and A. L. Izotov.* **1981, No. 1, 21 [25].**

Electromagnet for "Frozen" Polarization of a Proton Target. *M. M. Burkhin, V. P. Dan'shin, A. G. Daikovskii, Yu. F. Kiselev, A. P. Meshchanin, B. S. Neganov, S. B. Nurushev, Yu. I. Portugalov, and V. L. Rykov.* **1981, No. 1, 27 [30].**

Low-Temperature H_2–^{4}He and H_2–^{3}He Targets for Use in Electron Beams. *Y. A. Gol'dshtein and V. V. Lubyanyi.* **1981, No. 2, 321 [33].**

System for Supplying Gas to a Target in Experiments on Muon Catalysis of the (d + t) Nuclear Fusion Reaction. *V. M. Bystritskii, V. K. Kapyshev, S. Sh. Nukhamet-Galeeva, L. A. Rivkis, V. I. Satarov, and V. A. Stolupin.* **1981, No. 6, 1360 [27].**

Nonmetal Target Containing Liquid Hydrogen in a Pulsed Electric Field. *Yu. T. Borzunov, L. B. Golovanov, A. G. Zel'dovich, V. L. Mazarskii, A. P. Tsvinev, and V. F. Chumakov.* **1981, No. 6, 1363 [30].**

Liquid Hydrogen Target for Work in Intense Particle Fluxes. *A. V. Alekseev, V. N. Kryshkin, Yu. M. Mel'nik, A. P. Orlov, L. K. Turchanovich, and A. E. Yakutin.* **1982, No. 1, 38 [41].**

Expanding Device of a Track-Sensitive Deuterium Target. *A. V. Pozharskii and E. P. Ustenko.* **1982, No. 1, 41 [43].**

Slowing Down of an Electron Beam in a Recuperator of the Spherical Type. *A. Yu. Volkov, S. K. Dimitrov, and A. V. Makhin.* **1982, No. 1, 47 [48].**

High-Pressure Gas Target for Experiments with Gaseous Tritium. *V. M. Bystritskii, V. P. Dzhelepov, V. G. Zinov, V. M. Romanov, V. I. Satarov, V. A. Stolupin, and Sh. G. Shamsutdinov.* **1982, No. 2, 298 [21].**

Acoustical Technique for the Orientation of Single-Crystal Targets. *F. P. Denisov, V. N. Zabaev, S. I. Il'in, B. N. Kalinin, V. M. Kuznetsov, A. P. Potylitsyn, and V. K. Tomchakov.* **1982, No. 2, 300 [23].**

Liquid-Hydrogen Target Cooled by Flowing Helium. *Yu. M. Mel'nik, V. V. Churakov, and A. E. Yakutin.* **1983, No. 3, 533 [40].**

Liquid-Tritium Target for Investigation of Meso-Atomic and Meso-Molecular Processes. *V. M. Bystritskii, V. P. Dzhelepov, V. G. Zinov, A. D. Konin, V. A. Stolupin, V. A. Utkin, and Sh. G. Shamsutdinov.* **1983, No. 3, 536 [42].**

Pulsed Cesium Target for a Hydrogen-Atom Analyzer. *V. G. Dudnikov, V. P. Efimov, and G. I. Fiksel'.* **1983, No. 6, 1404 [138].**

Controllable Bending Unit for Targets Used on the Inner Beams for Charged-Particle Accelerators. *E. I. Rozum.* **1984, No. 2, 270 [18].**

Liquid-Hydrogen Target with Recondensation of Hydrogen by Helium. *Yu. T. Borzunov, L. B. Golovanov, V. L. Mazarskii, A. P. Tsvinev, and V. F. Chumakov.* **1984, No. 3, 542 [30].**

Gas-Supply System for a Liquid-Tritium Target with a Sensitive Volume of 35 cm^3. *V. M. Bystritskii, Ya. Voznyak, A. Gula, V. P. Dzhelepov, V. R. Kapyshev, M. P. Malek, S. Sh. Mukhamet-Galeeva, L. A. Rivkis, V. A. Stolupin, V. A. Utkin, and Sh. G. Shamsutdinov.* **1984, No. 4, 831 [46].**

System of Measurement of Proton Polarization in a Polarized Target. *I. M. Karnaukhov, A. A. Lukhanin, Yu. N. Telegin, V. T. Trotsenko, and V. F. Chechetenko.* **1984, No. 6, 1338 [37].**

Liquid-Tritium Target with Working Temperature Adjustable in the Range from 20.6 to 40°K. *V. M. Bystritskii, J. Wozniak, A. Gula, V. P. Dzhelepov, V. G. Zinov, E. Lotzki, V. A. Stolupin, and Sh. G. Shamsutdinov.* **1985, No. 1, 43 [46].**

Automatic Orientation System for Single-Crystal Targets in an Electron Accelerator. *B. N. Kalinin, E. I. Konovalova, G. A. Pleshkov, A. P. Potylitsyn, V. M. Tarasov, V. K. Tomchakov, and I. Khakberdiev.* **1985, No. 3, 533 [31].**

Diagnosis of Multiple Passage through a Thin Internal Target in a Cyclotron. *I. Ya. Barit, L. N. Katsaurov, L. P. Nechaeva, and Yu. K. Khokhlov.* **1985, No. 4, 761 [28].**

Polarized ^{3}He Gas Target. *A. M. Yasnogorodskii, V. V. Ostashko, and O. F. Nemets.* **1986, No. 1, 27 [30].**

A Target Device for Making Radionuclides in a Cyclotron. *A. N. Gushchin, O. N. Kolesnikov, V. I. Novikov, V. A. Shabrov, L. A. Kiseleva, V. P. Kozlov, N. A. Konyakhin, and N. N. Krasnov.* **1986, No. 6, 1282 [42].**

Internal Magnetic Target of Proton Synchrotron. *V. V. Gachurin, M. M. Kats, L. N. Kondrat'ev, A. D. Rogal', and V. Yu. Rusinov.* **1987, No. 4, 789 [37].**

Orientation of Single-Crystal Target in Beam of Labeled Gamma Quanta. *V. G. Zverev, B. I. Luchkov, and V. Yu. Tugaenko.* **1988, No. 2, 485 [188].**

Use of Resonance Radiation of Supersonic Charge-Transfer Target for Measurement of Target Thickness. *V. A. Ankudinov, R. N. Il'in, A. I. Krylov, and V. V. Kuznetsov.* **1988, No. 3, 550 [34].**

Polarized Proton Target with Horizontal Spin Orientation. *E. I. Bunyatova, Yu. F. Kiselev, N. G. Kozlenko, A. I. Kovalev, V. K. Korneenkov, V. V. Polyakov, V. E. Popov, A. N. Prokof'ev, V. Yu. Trautman, E. A. Filimonov, V. N. Shakhtarin, and G. M. Shklyarevskii.* **1988, No. 6, 1403 [36].**

Target Device for Simultaneous Irradiation of Several Specimens by Ion Beam in Vacuum. *V. A. Ryzhkov.* **1989, No. 1, 47 [48].**

Target for Operation with Hydrogen Isotopes at Pressures to 150 MPa in the Temperature Range from 20.4 to 300 K. *V. M. Bystritskii, V. G. Granovskii, V. P. Dzhelepov, V. G. Zinov, V. A. Kuts, V. A. Stolupin, V. A. Utkin, and A. N. Chibison.* **1989, No. 1, 50 [50].**

Orientation of Single Crystals in an Electron Beam with Energies of 10-1000 MeV. *V. L. Morokhovskii and A. V. Shchagin.* **1989, No. 3, 529 [36].**

Liquid-Helium Target for Studies with Electron and Photon Beams. *V. A. Get'man, A. Ya. Derkach, Yu. V. Zhebrovskii, I. M. Karnaukhov, A. A. Lukhanin, and A. L. Rubashkin.* **1989, No. 5, 1032 [58].**

Magnesium-Vapor Stripping Target. *V. V. Parkhomchuk and A. A. Seryi.* **1989, No. 5, 1034 [59].**

Target for Operation with Heavy Hydrogen Isotopes at Pressures to 1000 atm and Temperatures to 1050 K. *A. P. Arkhipov, V. M. Bystritskii, V. B. Granovskii, V. P. Dzhelepov, V. G. Zinov, V. A. Kuts, D. G. Merkulov, V. A. Stolupin, and Han Don Ir.* **1989, No. 6, 1283 [47].**

Target Unit for Radiation Studies of Metal Foils at Temperatures of from 78 K to the Melting Point. *V. F. Rybalko, S. M. Khazan, and A. I. Fedorenko.* **1989, No. 6, 1287 [50].**

Single-Crystal Orientation According to Electromagnetic-Shower Yield. *V. A. Baskov, V. B. Ganenko, V. A. Gushchin, Yu. V. Zhebrovskii, V. V. Kim, L. Ya. Kolesnikov, I. V. Konorov, B. I. Luchkov, A. L. Rubashkin, V. I. Sergienko, V. Yu. Tugaenko, and V. A. Khablo.* **1990, No. 6, 1302 [73].**

1.5.4. Electrode systems

System for Changing Anode Foil in a Pulse Electron Accelerator. *E. I. Baranchikov, V. D. Korolev, and V. P. Smirnov.* **1977, No. 1, 22 [24].**

Miniature Pulse Deflector. *A. A. Mikhailichenko and V. F. Turkin.* **1977, No. 3, 632 [23].**

Measurement of Ion Drift Time in the Gap of an Electrostatic Accelerator. *V. P. Yakushev, V. A. Nikitin, V. A. Romanov, K. A. Rezvykh, and V. I. Spirin.* **1977, No. 5, 1280 [48].**

Anode for an Accelerator with an Inductive Energy Accumulator. *G. I. Dolgachev, P. I. Blinov, and I. N. Slivkov.* **1978, No. 1, 11 [14].**

Stabilizing Resonator of High-Power Klystron Self-Oscillator. *V. I. Beloglazov and L. N. Sdobnava.* **1979, No. 1, 23 [26].**

Admissible Inhomogeneity of Resistance of an Electrically Conducting Covering of an Acceleration Tube. *V. K. Gagen-Torn and I. E. Reutskaya.* **1980, No. 1, 31 [37].**

Study of a Four-Electrode Multiple-Slit System for Ion-Beam Formation. *V. I. Davydenko, G. V. Roslyakov, and N. G. Khavin.* **1981, No. 5, 1116 [21].**

Construction and Experimental Characteristics of a Double-Resonator Accelerating System. *O. S. Milovanov and I. A. Smirnov.* **1981, No. 6, 1350 [17].**

A 500-kV Vacuum Lead for a High-Current Quasistationary Electron Accelerator with a Heated Cathode. *G. N. Antipov, S. V. Rybalov, and V. D. Sarbeev.* **1982, No. 6, 1438 [112].**

Measuring the Shunt Resistance of Three-Dimensional Resonators and Delay Systems. *A. A. Zavadtsev, B. V. Zverev, N. N. Nechaev, V. V. Ruzin, and N. P. Sobenin.* **1984, No. 2, 263 [13].**

Ultra-High Frequency Deflector Shaping Short Electron Bunches. *Yu. D. Chernousov and I. V. Shebolaev.* **1984, No. 3, 526 [18].**

Ways of Increasing the Voltage in Tunable-Frequency Accelerating Cavities. *I. I. Averbukh and M. M. Karliner.* **1985, No. 2, 292 [29].**

Experiments on the Generation of Pulses of Supplementary Accelerating Voltage on the INUS-3 Machine. *V. A. Burtsev, O. A. Gusev, B. N. Il'in, E. M. Mellekh, E. P. Pavlov, O. P. Pecherskii, and N. P. Shchegolikhin.* **1985, No. 2, 295 [32].**

Beam-Forming System for Electrostatic Accelerator. *A. V. Almazov, O. B. Dzagurov, V. V. Krivolap, and E. I. Sirotinin.* **1987, No. 5, 1043 [31].**

Improvement of Ion Optics of Compact Electrostatic Accelerator. *A. V. Simonenko, V. M. Pistryak, A. V. Zats, Yu. Z. Levchenko, V. V. Kuz'menko, and V. G. Bogdalin.* **1989, No. 1, 40 [43].**

Resonance Accelerating Structures of the Rectangular H-Resonator Type for Ion Accelerators with Phase-Variable Focusing. *S. V. Plotnikov.* **1990, No. 1, 22 [41].**

Electric Strength of Elements of High-Voltage Accelerating Tubes. *V. V. Shirokov.* **1990, No. 5, 1007 [38].**

1.5.5. Magnetic systems, magnetic-field monitoring

Passive Filter for Annular Electromagnet of IHEP Accelerator. *B. V. Kaz'min, L. L. Moizhes, É. V. Polyakov, O. N. Radin, and Yu. A. Fedorov.* **1977, No. 1, 13 [17].**

Active Filter of Annular Electromagnet of HEPI Accelerator. *V. K. Vorob'ev and L. L. Moizhes.* **1977, No. 2, 365 [32].**

Deflecting Septum Magnet. *Yu. A. Bashmakov, K. A. Belovintsev, V. A. Karpov, V. E. Pisarev, and K. N. Shorin.* **1977, No. 3, 630 [21].**

Automated System of Measuring Magnetic Field of an Isochronous Cyclotron. *Yu. P. Buzulukov, N. I. Venikov, A. A. Vinogradov, I. V. Naumov, V. V. Paramonov, E. M. Khodakov, I. M. Shapkin, and V. E. Yarosh.* **1977, No. 3, 638 [28].**

Magnetically Hard Quadrupole Lenses for Drift Tubes of Ion Linear Accelerators. *I. M. Kapchinskii, A. M. Kozodaev, N. V. Lazarev, and V. S. Skachkov.* **1977, No. 5, 1273 [42].**

Iron-Free Ribbon-Type Multipole Magnetic Lens. *K. K. Onosovskii and S. V. Skachkov.* **1979, No. 1, 32 [34].**

Regulating the Magnetization of Ferrite in Experiments on the Self-Acceleration of an Electron Beam. *A. A. Rakityanskii.* **1979, No. 2, 327 [37].**

Systems for Magnetization of Ferrites in Tunable Accelerating Resonators for Proton Synchrotrons. *I. I. Averbukh.* **1979, No. 3, 640 [29].**

A System for the Automatic Determination of the Tracks of Charged Particles in a Magnetic Field. *A. Z. Babayan and A. R. Tumanyan.* **1980, No. 1, 40 [45].**

Quadrupole Lens with Poles of Implicit Form Based on Permanent Magnets. *A. N. Gerbert, S. B. Mukho, Ya. D. Rabinovich, and V. S. Skachkov.* **1980, No. 1, 44 [49].**

Analytic Method for Calculating Parameters of Shims for Correcting Fields from Electromagnets. *A. E. Bol'shakov and L. L. Gol'din.* **1980, No. 3, 567 [30].**

Rod-Type Quadrupole Lenses with Permanent Magnets. *V. S. Skachkov.* **1980, No. 3, 571 [34].**

Adjustment of Field in Magnetically Hard Quadrupole Lens with Poles of Implicit Form. *V. S. Skachkov.* **1980, No. 3, 575 [37].**

Apparatus for Magnetic Measurements in the Accelerating System of the Prototype of a Collective Heavy-Ion Accelerator. *V. M. Lachinov, V. K. Makoveev, and N. V. Klokov.* **1980, No. 5, 1089 [34].**

Fast Matched Pulsing Magnet. *V. A. Vizir', N. A. Lashchuk, R. A. Meshcherov, V. S. Rybalko, and V. P. Shcherbinin.* **1981, No. 2, 318 [30].**

Magnetic System of Betatron with Auxiliary Magnetization. *V. V. Vasil'ev and E. G. Furman.* **1982, No. 1, 26 [30].**

Quantum Mechanical Analysis of Devices for Focusing Charged Particle Beams. *A. M. Shenderovich.* **1983, No. 3, 513 [22].**

Multichannel Automated System for Measuring the Nonuniformity Index of the Magnetic Field of a Synchrophasotron. *M. A. Voevodin, V. I. Volkov, L. P. Zinov'ev, A. D. Kovalenko, N. A. Korukov, I. Kulikov, Yu. I. Romanov, Sh. Z. Saifulin, and Yu. I. Tikhomirov.* **1983, No. 3, 559 [61].**

Tunable Ferrite-Core Induction Coils. *I. I. Averbukh and M. M. Karliner.* **1986, No. 3, 541 [33].**

Function Generator for Controlling the Magnet Power Supplies of a Superconducting Spin Synchrotron. *A. N. Parfenov and A. V. Pilyar.* **1986, No. 6, 1317 [74].**

Magnetic System for Transport of Relativistic Electron Beam. *E. B. Alfeev, A. V. Grigor'ev, S. L. Zaients, V. A. Popova, N. N. Popova, N. M. Chestnova, Yu. A. Chubanova, and G. A. Shneerson.* **1987, No. 1, 29 [31].**

Current-Pulse Generator for Electromagnet of Induction Accelerator. *B. A. Baginskii, V. N. Makarevich, and M. M. Shtein.* **1987, No. 3, 512 [22].**

Device for Measurement of Magnetic-Field Distribution of Siluet Accelerator. *E. A. Zyat'kov, V. N. Kazakov, V. G. Kolesnik, V. M. Lanskov, and A. Sh. Khamidov.* **1987, No. 4, 773 [23].**

Pulsed Magnet for Commutation of Packets of 15-MeV Electron Bunches. *V. V. Zav'yalov and V. K. Semenov.* **1987, No. 6, 1301 [27].**

Thyristor Current-Pulse Generator for Betatron Electromagnet with Independent Low-Voltage Supply. *B. A. Baginskii, V. N. Makarevich, and M. M. Shtein.* **1988, No. 4, 832 [16].**

Pulsed Magnet with Thyristor Switch in Supply Circuit for Electron-Beam Scanning. *S. S. Asina, K. A. Vinogradov, V. N. Dronin, and A. M. Surma.* **1989, No. 5, 1026 [53].**

Electromagnet for Microtron with Increased Accelerated-Electron Energy. *V. N. Melekhin.* **1990, No. 2, 290 [57].**

1.5.6. Supplies

Shaping of Highly Stable Flat Top in Pulse of Excitation Current of Electromagnet in "Sirius" Synchrotron. *P. P. Krasnonosen'kikh, V. M. Kuznetsov, N. A. Lashuk, L. I. Minenko, and Z. Sh. Faskhutdinov.* **1977, No. 1, 17 [20].**

Pulsed Power Supply System to Betatron Electromagnet. *V. V. Vasil'ev and É. G. Furman.* **1977, No. 3, 634 [24].**

Apparatus for Measuring Pulse-Amplitude Instability in Accelerator Systems. *L. P. Butenko, V. V. Mel'nichenko, and A. N. Savchenko.* **1977, No. 3, 636 [26].**

Tuned Power Amplifier for the Supply of the Accelerating Resonator of an Ion Synchrotron. *I. I. Averbukh and M. M. Karliner.* **1978, No. 3, 577 [25].**

Power Supply and Stabilization System for the Charging Unit of an Electrostatic Accelerator. *V. A. Nikitin and V. P. Yakushev.* **1978, No. 4, 860 [29].**

Functional Generator of the Controlling Voltage of a Linear Accelerator Energy Modulator. *Yu. D. Beznogikh, M. A. Voevodin, and Sh. Z. Saifulin.* **1979, No. 2, 330 [40].**

Automated Monitoring of High Voltage in ÉGP-10M Accelerator. *V. I. Mukhametshin, Yu. R. Chalyi, and V. A. Romanov.* **1980, No. 3, 558 [23].**

System of Automatic Synchronization of Modulators of the "SILUND" Accelerator. *L. V. Dubovik, V. D. Inkin, V. P. Nikolaev, T. P. Saenko, and A. V. Smirnov.* **1982, No. 3, 529 [20].**

A Power Supply and Gun Control for a High-Current Pulsed Electron Accelerator. *Yu. G. Bamburov and I. V. Kazarezov.* **1982, No. 5, 1179 [121].**

Betatron Energy Stabilization System. *Yu. V. Kuznetsov, E. V. Lazutin, Yu. A. Novikov, and V. M. Sorvin.* **1982, No. 6, 1333 [21].**

Application of Compression Sections and Nonlinear Shaping Circuits in the Modulator of a Linear Induction Accelerator. *G. V. Dolbilov, A. K. Krasnykh, and V. N. Razuvakin.* **1984, No. 4, 808 [26].**

Inductive-Pulsed Power Supply for a Betatron Magnet. *Yu. A. Otrubyannikov and A. S. Safronov.* **1984, No. 6, 1319 [22].**

Equivalent-Circuit Study of the Process of Forming a Pulse of Accelerating Voltage in a Linear Induction Accelerator. *M. I. Demskii.* **1984, No. 6, 1322 [24].**

Synchronization Circuit for Shaping Picosecond Accelerated-Electron Pulses. *Yu. S. Pavlov, H. G. Solov'ev, and A. P. Tomikov.* **1985, No. 6, 1335 [93].**

Precision Initial-Frequency Generator for RF Accelerating-Voltage Shaper of Booster of Institute of High-Energy Physics. *V. L. Bruk, V. K. Vorob'ev, and V. G. Tishin.* **1986, No. 5, 1002 [19].**

System for Regulated Resonant Charging of Modulators of SILUND-20 Accelerator. *G. V. Dolbilov, N. I. Lebedev, S. V. Uzlov, A. A. Fateev, and B. G. Shchinov.* **1986, No. 5, 1005 [22].**

An Induction Sensor for Measuring the Accelerating Voltage in an Iron-Free Induction Accelerator. *N. S. Bol'nykh, Yu. M. Il'in, A. A. Kostyushok, and V. A. Suvorov.* **1986, No. 6, 1276 [37].**

Low-Impedance Strip Shaping Lines for Linear Induction Accelerators. *E. G. Furman.* **1987, No. 5, 1037 [26].**

Modulator for LUEK-20 Linear Induction Electron-Ion Ring Accelerator. *G. V. Dolbilov, V. I. Kazacha, V. P. Sarantsev, and A. I. Sidorov.* **1987, No. 5, 1052 [38].**

High-Frequency Accelerating Field Amplitude Programmer for Electron Synchrotron. *I. M. Korbakova and V. I. Tolmachev.* **1987, No. 6, 1298 [25].**

Power Supply for Betatron Injector. *V. V. Larin and M. M. Shtein.* **1989, No. 4, 766 [34].**

Synchronization of Systems of Booster Synchrotron with Field of Annular Electromagnet. *V. L. Bruk, Yu. V. Korolev, and A. V. Stolyarov.* **1991, No. 2, 259 [33].**

1.6. Beam diagnosis

Measurement of Beam Losses in Linear Proton Accelerators and Problems in Diagnostics of Beam Perturbations (Survey). *A. P. Fedotov.* **1981, No. 5, 1101 [7].**

Diagnosis of Particle Beams in Cyclotrons (Review). *V. A. Rezvov and L. I. Yudin.* **1990, No. 6, 1239 [20].**

Wide-Band Mirror Optical Pathway for Electron-Ring Diagnostics Using Synchrotron Radiation. *G. I. Belinskaya, A. S. Dubovik, Yu. T. Kiryushin, A. A. Mal'tsev, and B. M. Stepanov.* **1977, No. 4, 950 [27].**

Measurement of the Parameters of an Electron Beam by Determining the Ionization of the Residual Gas. *V. A. Moskalev and G. I. Sergeev.* **1978, No. 4, 850 [20].**

System for Measurement of the Parameters of the Electron Ring of a Heavy-Ion Accelerator by the Synchrotron Radiation. *T. V. Bespalova, I. A. Golutvin, N. I. Zamyatin, Yu. T. Kiryushin, N. M. Lustov, A. A. Mal'tsev, A. A. Popov, V. P. Sarantsev, V. A. Svidirov, D. A. Smolin, V. S. Rhabarov, and Yu. A. Yatsunenko.* **1979, No. 1, 18 [22].**

Resonator Sensor for the Parameters of Charged-Particle Beams. *M. A. Voevodin, A. D. Kovalenko, P. P. Pavlov, and V. A. Popov.* **1979, No. 1, 29 [32].**

Measurement of Integral Characteristics of Intense Pulsed Electron Beams. *V. V. Glebov, V. A. Malafaev, and D. N. Novichkov.* **1979, No. 2, 332 [42].**

Autonomous Diagnostic System for a Beam of Particles. *S. G. Basiladze, L. N. Komolov, and V. K. Yudin.* **1979, No. 5, 1284 [90].**

Measuring the Limits of Regions of Instability of Electron Beams. *B. N. Zinchenko and N. S. Zinchenko.* **1979, No. 6, 1512 [33].**

Radiation Effects and Acceptable Particle Losses in High-Current Accelerators to 50 MeV. *A. A. Drozdovskii.* **1980, No. 1, 26 [32].**

Diagnostics of Beam Perturbations in Linear Ion Accelerators from the Distribution of Secondary Particles. *A. P. Fedotov, V. V. P'yankov, V. V. Frolov, and V. B. Khvostov.* **1980, No. 3, 562 [26].**

Multichannel System of Monitoring Beams of Accelerated Nuclei on the Basis of an Ionization Pickup. *V. I. Volkov, I. F. Kolpakov, I. I. Kulikov, and V. M. Slepnev.* **1981, No. 4, 845 [18].**

Determining the Variance of the Electron-Beam Divergence in a Cyclic Accelerator by Measuring the Synchrotron Radiation. *I. S. Guk and P. I. Gladkikh.* **1984, No. 1, 25 [34].**

A Photodosimeter of Accelerated Protons. *V. I. Kostyuchenko, S. P. Lisovets, L. Ya. Kaplun, and E. A. Gruz.* **1984, No. 2, 275 [23].**

Optical Diagnosis of Electron Beam in the "Pakhra" Synchrotron. *Yu. A. Bashmakov, V. A. Karpov, and A. S. Yarov.* **1984, No. 6, 1329 [30].**

Influence of Time Characteristics of Beam Extraction on Coherent Bremsstrahlung Spectra. *R. O. Avakyan, A. E. Avetisyan, N. A. Zapol'skii, R. Ts. Sarkisyan, Kh. A. Simonyan, S. P. Taroyan, and A. R. Tumanyan.* **1985, No. 2, 304 [39].**

Filtering of Transverse Phase Space in Linear Proton Accelerators with Allowance for Space Charge and Coupling of Transverse and Longitudinal Particle Oscillations. *V. S. Kabanov, S. A. Lukshin, and A. P. Fedotov.* **1986, No. 1, 22 [26].**

Deflector System for Intrapulse Phase Shift of Particles of Linear-Accelerator Beam. *V. V. Zakutin, V. A. Kushnir, V. P. Romas'ko, and A. M. Shenderovich.* **1987, No. 4, 777 [27].**

Measurement of Neutral Component in Proton Beam. *V. N. Getmanov.* **1988, No. 1, 9 [14].**

Determination of Average Momentum and Composition of Charged-Particle Beam by Means of Threshold Gas Counter. *Kh. U. Abraamyan, M. N. Khachaturyan, and A. G. Khudaverdyan.* **1988, No. 6, 1388 [24].**

Resonator Sensor of Position, Current, and Phase of Electron Beam. *A. S. Alimov, I. V. Gribov, V. A. Korneenkov, V. I. Shvedunov, and A. V. Shumakov.* **1989, No. 3, 520 [28].**

Determination of Emittance of Charged-Particle Beam. *V. I. Artemov, S. A. Dobromirov, F. A. Peev, and D. L. Stepin.* **1989, No. 4, 776 [42].**

Beam Scanning of Linear Resonance Electron Accelerator in Passive-Resonator Chain. *A. I. Zykov, V. A. Kushnir, V. P. Romas'ko, G. L. Fursov, and A. M. Shenderovich.* **1990, No. 2, 283 [52].**

Characteristics of a Beam in the First Resonator of a Meson-Factory Linear Accelerator. *Yu. V. Bylinskii, D. V. Gorelov, S. K. Esin, A. N. Mirzoyan, B. P. Murin, P. N. Ostroumov, A. P. Fedotov, and A. V. Feshchenko.* **1990, No. 5, 998 [31].**

System for Measurement of Space Characteristics of Beams Extracted from Synchrophasotron. *A. N. Balandikov, V. I. Volkov, V. M. Gorchenko, S. V. Romanov, and A. P. Tsarenkov.* **1990, No. 5, 1065 [88].**

Determination of Angular Spread of Magnetized Relativistic Electron Beam with Passage Through Cylindrical Collimator. *V. V. Chikunov.* **1990, No. 6, 1268 [46].**

Use of Memory-Element Arrays for Monitoring of Heavy-Ion Currents. *D. V. Akin'shin, M. N. Borisova, N. G. Goleminov, A. Yu. Didyk, V. A. Skuratov, and V. I. Smirnov.* **1990, No. 6, 1271 [49].**

Diffraction Detector of Electron Spin Polarization. *Yu. P. Yashin, A. A. Lavren'tev, M. K. Alyakrinskii, and M. S. Galaktionov.* **1991, No. 1, 62 [72].**

Diagnosis of Accelerator Electron-Beam Instabilities Using Single-Crystal Radiator. *V. V. Kalashnikov, B. R. Meshcherov, and V. I. Tumanov.* **1991, No. 2, 276 [46].**

Selection of Charged-Particle Detector for Extensive Air Showers. *V. V. Vashkevich, Yu. A. Nechin, B. A. Khrenov, G. B. Khristiansen, V. V. Pomerantsev, and V. G. Senchishin.* **1991, No. 3, 523 [48].**

Calibration of Beam Position Monitor Using Two-Wire Transmission Line Simulator. *L. K. Alekseev, V. F. Vikulov, I. V. Pishchulin, and N. G. Solov'ev.* **1991, No. 4, 763 [30].**

Screens for Diagnosis of 70-GeV Proton Beams. *S. D. Borovkov, S. A. Grishenkov, V. S. Konevskii, E. V. Krivonosov, L. A. Litvinov, V. P. Novikov, E. V. Serga, and A. V. Kharlamov.* **1991, No. 4, 767 [33].**

Measurement of Proton-Beam Parameters by Means of Digital Television Diagnostic System. *V. A. Vazhenin, S. D. Borovkov, A. V. Evtikhiev, V. A. Zenin, V. P. Novikov, A. A. Ornatov, Yu. A. Romanov, A. M. Ryzhkov, E. V. Serga, A. V. Kharlamov, G. V. Khitev, and A. A. Yagnakov.* **1991, No. 4, 771 [36].**

1.6.1. Current and energy measurement

Highly Stable Secondary Emission Monitor of Current of a Beam of Accelerated Electrons. *I. A. Prudnikov, G. L. Saksaganskii, E. B. Bazhanov, and B. V. Zabrodin.* **1977, No. 4, 957 [33].**

Liquid Ultrasonic Meter for the Intensity of Pulsed Beams of Charged Particles. *V. D. Volovik and V. I. Kobizskoi.* **1978, No. 3, 590 [37].**

Magnetomodulation Device for Measuring the Current of a Beam of Charged Particles. *B. A. Baklakov, V. F. Veremeenko, M. M. Karliner, A. A. Litvinov, and S. P. Petrov.* **1979, No. 3, 646 [34].**

Noise-Immune System for Measuring the Intensity of a Beam of Charged Particles. *A. K. Protasov, V. M. Rybin, and V. N. Sukhin.* **1980, No. 1, 277 [266].**

Sectioned Faraday Cylinder for Magnetized High-Current Beams. *I. Z. Gleizer, Yu. P. Usov, V. I. Tsvetkov, and A. A. Shatanov.* **1980, No. 2, 336 [46].**

An Ion Beam Monitor. *A. S. Brus, A. I. Velikov, M. A. Kuz'michev, V. A. Klyukovich, and V. K. Khorenko.* **1981, No. 3, 585 [29].**

A Magnetic-Induction Beam Current Transducer with Shielding from Magnetic Interference. *A. S. Kalinin and E. I. Shubin.* **1982, No. 5, 1070 [32].**

Charge-Density Measurement for Single Nanosecond Electron-Beam Pulses. *V. I. Voroshen' and N. M. Chirkin.* **1982, No. 5, 1147 [97].**

A Sensor for Measuring the Current and the Energy of Electron Bunches. *A. D. Stepanov.* **1984, No. 2, 267 [16].**

Device for Measuring the Beam Current in a Linear Induction Accelerator. *M. I. Demskii and A. N. Popov.* **1985, No. 1, 32 [36].**

Laser Method for Determination of Angle and Energy Characteristics of High-Current Proton Beam. *S. S. Sulakshin.* **1986, No. 2, 291 [31].**

Electron-Beam Pulse-Charge Meter. *V. F. Borzhkovskii, N. G. Stervoedov, and V. I. Ushakov.* **1986, No. 5, 1009 [25].**

Energy Spread of Particles in Beam of Electrostatic Accelerator. *O. B. Dzagurov, N. V. Eremin, V. V. Krivolap, E. I. Sirotinin, and V. F. Strizhov.* **1987, No. 2, 262 [20].**

Errors in Determination of Current of High-Current Electron Beam. *N. A. Kondrat'ev, G. I. Kotlyarevskii, V. I. Smetanin, and Yu. P. Surikov.* **1988, No. 2, 283 [25].**

Wide-Range Beam-Intensity Meter of Serpukhov Accelerator. *S. V. Makonin, S. V. Petrenko, V. S. Seleznev, and V. I. Terekhov.* **1988, No. 3, 539 [26].**

Measurement of Effective Electron-Beam Emittance. *V. G. Gevorkyan, I. V. Gribov, S. V. Zinov'ev, B. S. Ishkhanov, I. M. Piskarev, A. B. Savitskii, V. I. Shvedunov, and A. V. Shumakov.* **1988, No. 6, 1392 [28].**

Proton-Beam Energy Analyzer. *V. N. Belan, L. I. Bolotin, V. A. Kiselev, A. F. Linnik, and V. V. Uskov.* **1988, No. 6, 1396 [31].**

Measurement of Current of Negative-Ion Beams according to Yield of Instantaneous Gamma Radiation. *V. A. Papadichev, V. N. Pashentsev, and I. V. Tyapkin.* **1989, No. 3, 516 [25].**

Device for Measurement of Circulating Current in Betatron. *A. K. Grenaderov.* **1989, No. 5, 1028 [55].**

Luminescence Pickup of Proton-Beam-Current Density. *E. A. Meleta, N. I. Malykh, I. K. Sidorova, T. I. Prokhorova, and O. M. Ostrogina.* **1991, No. 2, 257 [31].**

1.6.2. Profile measurement

Multichannel Recorder for Measuring Current Density Distribution Over Cross Section of Beam from Pulsed Electron Accelerator. *V. A. Kochenkov, V. I. Mikhailov, V. S. Naek, A. I. Porukhun, S. L. Skorobogat, and I. N. Slivkov.* **1977, No. 2, 481 [139].**

System for Measuring Spatial Characteristics of Beam Extracted from Synchrophasotron of the High-Energy Laboratory of the Joint Institute for Nuclear Research. *V. I. Volkov, I. A. Eliseeva, L. A. Leonov, and V. F. Sikolenko.* **1978, No. 1, 14 [16].**

Use of a Dielectric in Charged-Particle Beam-Position Detectors. *N. I. Zinevich and V. P. Cherepanov.* **1978, No. 2, 296 [30].**

Method for Estimating the Density Distribution of a Deuteron Beam. *Yu. G. Bessarabskii, S. B. Ovsyannikov, V. M. Prokop'ev, and S. P. Sukhoveev.* **1979, No. 2, 335 [45].**

Determination of Beam Profile in Accelerator by Acoustic Dosimetry. *Yu. V. Batygin, V. D. Volovik, S. I. Ivanov, S. P. Karasev, and L. A. Makhnenko.* **1980, No. 4, 832 [24].**

Determination of the Angular Spread of a Magnetized Relativistic Electron Beam from Its Passage through Micro Openings. *A. V. Arzhannikov, V. S. Koidan, and S. V. Loginov.* **1983, No. 4, 773 [36].**

Small Pickup for Current and Profile of Beam of Pulsed Electrostatic Proton Accelerator. *V. N. Getmanov.* **1985, No. 1, 35 [39].**

"Thin" Chamber for Measuring Profiles of Intense Beams of High-Energy Charged Particles. *V. N. Gres', Yu. P. Davydenko, S. N. Lapitskii, K. K. Pokrovskii, V. E. Rakhmatov, V. S. Seleznev, and V. I. Terekhov.* **1985, No. 3, 529 [27].**

Measurement by Multiwire Sensors of Current and Profile of Charged and Neutral Components of Hydrogen Beam. *V. I. Batkin, V. N. Getmanov, and O. Ya. Savchenko.* **1987, No. 2, 268 [26].**

High-Speed Two-Coordinate Profilometer. *N. A. Goryainov, Yu. V. Efremenko, S. G. Kuznetsov, A. V. Smirnitskii, and B. B. Shvartsman.* **1987, No. 4, 780 [29].**

Image-Tube Recording of Beam Profile of Pulse Accelerator. *V. L. Gladchenko, V. M. Gorbachev, N. I. Zavada, M. I. Krasilkov, A. V. Pilipenko, V. A. Safonov, and V. A. Tsukerman.* **1989, No. 2, 298 [44].**

Measurement of Current-Density Distributions of Axisymmetric Charged-Particle Beams. *A. P. Markin and L. N. Pustynskii.* **1989, No. 2, 305 [50].**

Electron-Beam-Profile Sensor. *I. V. Gribov, S. V. Zinov'ev, A. B. Savitskii, V. A. Ushkanov, V. I. Shvedunov, and A. V. Shumakov.* **1989, No. 4, 770 [37].**

Multiwire Monitor of Proton-Beam Profile. *S. E. Bragin, N. G. Il'inskii, P. I. Reingardt-Nikulin, and Yu. V. Senichev.* **1990, No. 3, 535 [59].**

System for Determination of Proton-Beam Profile Based on Multiwire Sensor. *S. E. Bragin, V. A. Golubev, N. G. Il'inskii, O. D. Pronin, and P. I. Reingardt-Nikulin.* **1990, No. 6, 1305 [76].**

Multiple Measurement of Proton-Beam Profile with Slow Extraction from 70-GeV Synchrotron. *Yu. P. Davydenko, V. M. Roman'kov, V. S. Seleznev, and V. I. Terekhov.* **1991, No. 4, 775 [40].**

1.7. Neutron beams and generators

Neutron Stripping Channel of the High-Energy Laboratory in the Joint Institute for Nuclear Research. *A. P. Gasparyan, L. P. Zinov'ev, A. P. Ierusalimov, F. Kotorobai, A. G. Kochurov, V. I. Moroz, S. S. Nagdasev, A. V. Nikitin, Yu. V. Smirnov, and Yu. A. Troyan.* **1977, No. 2, 371 [37].**

Project for a Linear Accelerator for an Experimental Neutron Generator. *I. M. Kapchinskii.* **1977, No. 4, 946 [23].**

IBR-2 Periodic Pulse Reactor for Neutron Research. *V. D. Anan'ev, D. I. Blokhintsev, Yu. M. Bulkin, B. N. Bunin, E. D. Vorob'ev. N. A. Dollezhal', V. I. Lushchikov, Yu. M. Ostanevich, V. S. Smirnov, I. M. Frank, N. A. Khryastov, E. P. Shahalin, É. I. Sharapov, and Yu. S. Yazvitskii.* **1977, No. 5, 1245 [17].**

ING-2 Pulsed Neutron Generator. *V. P. Yakushev and V. I. Burlaka.* **1978, No. 5, 1181 [27].**

Pulsed Neutron Generator with Laser Deuteron Source. *D. F. Bespalov, Yu. A. Bykovskii, I. I. Vergun, K. I. Kozlovskii, Yu. P. Kozyrev, R. P. Pleshakova, E. V. Ryabov, Yu. V. Cherkasov, A. S. Tsybin, and A. E. Shikanov.* **1978, No. 6, 1472 [19].**

Neutron Beams of the Leningrad Institute of Nuclear Physics Synchrocyclotron. *V. N. Vaturin, V. P. Koptev, E. M. Maev, M. M. Makarov, V. V. Nelyubin, V. V. Sulimov, A. V. Khanzadeev, and G. V. Shcherbakov.* **1979, No. 4, 927 [44].**

Water Trap for Shutting Off the Neutron Beam from the Vertical Channel of a Research Reactor. *V. P. Fedunin.* **1979, No. 4, 930 [47].**

Thermomagnetic Gates for Ultracold Neutrons. *Yu. V. Nikitenko and Yu. V. Taran.* **1979, No. 4, 932 [49].**

Physical Characteristics of a Tritium Gas Target as a Source of Monoenergetic Neutrons. *N. I. Fetisov, S. P. Simakov, A. M. Trufanov, O. A. Sal'nikov, and G. N. Lovchikova.* **1980, No. 6, 1340 [22].**

Modernized NG-200U Neutron Generator for Studying Radiation-Stimulated Diffusion of Impurities in Semiconductors. *S. B. Alekseev, O. F. Afonin, and Y. V. Kozlovskii.* **1981, No. 2, 315 [28].**

Using a Laser Generator of Neutrons in Investigations and Calibrations of Detectors for Pulsed Neutron Fluxes. *M. V. Kirillov-Ugryumov, K. I. Kozlovskii, V. K. Lyapidevskii, V. A. Prorvich, and A. S. Tsybin.* **1981, No. 2, 362 [71].**

Neutron Radiation Monochromators Made from Highly Oriented Pyrographite. *A. A. Chernyshov, M. N. Severov, E. I. Neproshin, A. V. Kharitonov, and N. N. Shipkov.* **1981, No. 5, 1139 [42].**

Measurement of the Parameters of an Ion Beam at the Target of a Neutron Generator. *E. I. Gerasimov and A. I. Solnyshkov.* **1982, No. 1, 44 [46].**

Spin-Flipper with Magnetic-Field Compensation. *Yu. A. Mostovoi.* **1982, No. 3, 533 [24].**

Setup for Monitoring the Flux Density of Fast Neutrons. *E. R. Astvatsatur'yan, V. M. Barbashov, V. A. Godovitsyn and A. I. Chumakov.* **1983, No. 3, 523 [31].**

Independent Device for Measuring Neutron Fluxes from Pulsed Sources. *V. A. Kuz'min, N. A. Loskutov, and A. N. Popytaev.* **1984, No. 1, 32 [39].**

Modulation of a Beam of Ultracold Neutrons by a Thin-Film Ferromagnetic Shutter. *M. I. Novopol'tsev, Yu. N. Pokotilovskii, and I. G. Shelkova.* **1985, No. 4, 764 [31].**

Cold-Neutron Selector. *B. G. Polosukhin, B. N. Goshchitskii, and V. G. Chudinov.* **1986, No. 5, 1017 [32].**

Production of Megavolt Neutron Beams with a Relative Energy Spread of ~5 × 10^{-4}. *Yu. G. Zubov, N. S. Lebedeva, and V. M. Morozov.* **1986, No. 6, 1271 [33].**

Accuracy of Neutron-Beam Polarization Measurement by Shim Method. *M. I. Tsulaya, M. S. Gabeliya, and S. I. Dzhamaspishvili.* **1987, No. 1, 32 [33].**

Neutron-Beam Polarizer. *Yu. V. Zakharov, V. M. Zykov, A. Yu. Nenaglyadov, A. A. Osochnikov, V. I. Raitsis, and A. N. Chernyi.* **1988, No. 3, 548 [32].**

LNT-2M Neutron Accelerating Tube with Laser Ion Source. *V. A. Voitenko, V. M. Gul'ko, N. F. Kolomiets, R. P. Pleshakov, A. E. Shikanov, and K. I. Yakovlev.* **1988, No. 5, 1122 [34].**

System for Neutron-Beam Chopping and Monochromatization. *V. S. Bedbenov and G. A. Oganezov.* **1988, No. 6, 1399 [33].**

Generator of 14-MeV Neutrons with a Flux of 5 × 10^{11} sec^{-1}. *G. I. Primenko, V. K. Maidanyuk, V. M. Neplvuev, Yu. A. Sedov, and V. K. Tarakanov.* **1989, No. 6, 1273 [39].**

NTG-3 Compact Sealed Gas-Filled Neutron Tube. *V. M. Gul'ko, V. A. Zrazhevskii, N. F. Kolomiets, B. V. Mikhailenko, A. E. Shikanov, and K. I. Yakovlev.* **1990, No. 3, 522 [48].**

High-Intensity Generator of 14-MeV Neutrons with Long Target Life. *V. I. Baranov, E. O. Skirgello, and V. I. Shebanov.* **1990, No. 5, 1014 [44].**

Spherical Converters for Neutron-Generator-Based Thermal-Neutron Sources. *G. A. Borisov and V. D. Sevast'yanov.* **1990, No. 5, 1018 [48].**

Device for Placement of Instruments in Horizontal Channel of IRT Reactor. *A. P. Kryukov, L. A. Ballod, N. O. Elyutin, D. S. Denisov, F. G. Kulidzhanov, S. K. Matveev, and A. O. Éidlin.* **1991, No. 3, 497 [27].**

NTG-2 Compact Sealed Accelerating Tube for Neutron Generation. *V. M. Gul'ko, N. F. Kolomiets, B. V. Mikhailenko, A. E. Shikanov, and K. I. Yakovlev.* **1991, No. 5, 1024 [45].**

Nanosecond Neutron Generator. *S. I. Lobov, N. G. Pavlovskaya, and S. P. Pukhov.* **1991, No. 5, 1027 [48].**

2. PARTICLE SPECTROMETRY

2.1. Techniques of nuclear spectroscopy

Temperature Characteristics of α-Datum Stabilizers. *A. Ya. Sinitsyn and R. M. Gabitov.* **1978, No. 2, 328 [58].**

Apparatus for Collecting and Transporting Nuclear Reaction Products by Means of a Laminar Gas Flow. *Yu. P. Gangrskii and L. V. Mikhailov.* **1980, No. 4, 834 [26].**

Measuring the Excitation Function of Nuclear Reactions on a Beam Having a Broad Energy Spectrum. *S. V. Artemov, É. A. Zaparov, B. S. Mazitov, and V. P. Yakushev.* **1981, No. 1, 24 [28].**

Response Function and Other Characteristics of a Spectrometric System Consisting of a Plane Radioactive Source and Plane Detectors. *A. A. Kolchin, V. V. Lebedev, and G. P. Skrebtsov.* **1981, No. 1, 32 [35].**

A Scanning Radiochromatograph. *B. A. Galushkin and V. D. Grishin.* **1981, No. 2, 526 [222].**

Analysis of the Instrumental α-Ray Spectrum with Account for the Low-Energy Part of the Response Function of a Semiconductor Detector. *A. F. Gurevich.* **1981, No. 5, 1149 [51].**

Time-of-Flight Spectrometer Using Microchannel Plates. *A. A. Aleksandrov, N. G. Volkov, Yu. V. Pyatkov, A. M. Tron', S. N. Fedotov, and A. N. Shemetov.* **1981, No. 6, 1354 [21].**

Use of a Laser to Adjust a System of Detectors of the Products of Nuclear Reactions. *V. I. Grantsev, I. P. Dryapachenko, V. A. Kornilov, O. F. Nemets, B. A. Rudenko, M. V. Sokolov, B. G. Struzhko, A. V. Gnatovskii, and V. N. Boichuk.* **1982, No. 1, 80 [76].**

Simple Tube Conveyer for Quick Activation Analysis of Probes of 50-cm^3 Volume. *L. M. Zykin, A. A. Kolosov, and Yu. M. Tsipenyuk.* **1982, No. 3, 778 [231].**

An Apparatus for Initiating Fast Radiation-Chemical Processes. *A. S. Bogomolov, E. M. Zakutov, I. V. Shebolaev, and Yu. D. Chernousov.* **1983, No. 2, 472 [210].**

Spectrometer with Crossed Electric and Magnetic Fields for the Change of Direction of the Polarization Vector of an Electron Beam. *V. L. Agranovich, V. A. Get'man, V. P. Efimov, I. M. Karnaukhov, V. S. Kuz'menko, and I. L. Semisalov.* **1983, No. 5, 1004 [13].**

Light-Nucleus Spectrometer Based on Multidetector Telescopes. *L. I. Abashidze, V. V. Avdeichikov, S. A. Avramenko, Y. I. Bogatin, V. A. Budilov, N. L. Gorshkova, J. Zlomanczuk, N. K. Zhidkov, V. D. Maisyukov, Yu. A. Murin, A. Nawrot, V. A. Nikitin, P. V. Nomokonov, V. S. Oplavin, and M. Szawlowskii.* **1985, No. 4, 767 [33].**

Determination of Lifetimes of Isomeric States of ^{172}Yb and ^{181}Ta Nuclei with Single-Crystal Scintillation Time-of-Flight Spectrometer. *A. Zhil'tsov, V. A. Morozov, V. I. Razov, V. I. Stegailov, and V. Tan'ska-Krupa.* **1987, No. 1, 40 [39].**

2.1.1. Fission-product spectrometers

Automation of Parameter Measurement and Monitoring for Amplification–Conversion Tract of a Spectrometer Based on Semiconductor Mosaics. *I. N. Sinogeev, M. N. Andronenko, and E. M. Orishchin.* **1977, No. 4, 966 [41].**

Detection of Low-Energy Heavy Ions. *D. S. Andreev, G. M. Gusinskii, and I. Kh. Lemberg.* **1978, No. 3, 628 [73].**

Improved Charged-Particle Identification Device. *V. N. Radushkin, M. E. Kaganskaya, B. G. Skorodumov, Yu. N. Talanin, and I. I. Trinkin.* **1979, No. 1, 70 [68].**

An Ionization Spectrometer for Recoil Nuclei in Research of Elastic Small-Angle Scattering of Hadrons. *A. A. Vorob'ev, Yu. S. Grigor'ev, Yu. K. Zalite, G. A. Korolev, E. M. Maev, G. L. Sokolov, and A. V. Khanzadeev.* **1981, No. 5, 1127 [31].**

Identification of Heavy Charged Particles by Using a Fast Amplifier to Obtain E- and t-Signals. *A. S. Gass, V. N. Dobrikov, O. F. Nemets, P. N. Svetlichnyi, V. A. Stepanenko, and A. A. Shvedov.* **1982, No. 6, 1355 [41].**

Semiconductor Spectrometer of Conversion Electrons with β Background Suppression. *I. N. Vishnevskii, V. A. Zheltonozhskii, V. P. Syvato, and V. V. Trishin.* **1983, No. 1, 37 [38].**

Automated Electronic System for a Multilayer Semiconductor Spectrometer. *I. I. Gaisak, M. G. Gornov, Yu. B. Gurov, A. S. Lukin, P. V. Morokhov, K. O. Oganesyan, B. P. Osipenko, E. A. Pasyuk, V. A. Pechkurov, A. P. Pichugin, S. Yu. Porokhovoi, B. S. Rozov, V. I. Savel'ev, F. M. Sergeev, A. A. Khomotov, and R. R. Shafigullin.* **1983, No. 5, 1011 [19].**

Wide-Range Analog Identifying Unit for Measuring Mass Spectra of Nuclear Reaction Products. *E. A. Romanovskii, P. V. Vakulov, Yu. I. Denisov, N. B. Mazurchik, R. B. Begzhanov, I. R. Gulamov, T. Iskhakov, G. S. Valiev, and A. V. Tsupin.* **1983, No. 6, 1280 [31].**

Portable Spectrometer for Correlation Experiments. *V. I. Gavrilyuk, Yu. A. Dei, O. B. Mel'nikov, R. G. Ofengenden, Yu. V. Patlan', V. A. Sidorenko, I. P. Tkachuk, and V. V. Trishin.* **1987, No. 2, 276 [33].**

Scintillation-Ionization Chamber for Study of Ternary Fission. *V. E. Makarenko, Yu. D. Molchanov, G. A. Otroshchenko, and G. B. Yan'kov.* **1988, No. 5, 1153 [59].**

Transit-Time System for Measurement of Energy Losses in Scattering of Particles with Energies in the Kiloelectron-Volt Range. *V. A. Morozov.* **1989, No. 2, 321 [64].**

Spectrometer for Unmoderated Fission Products. *A. A. Aleksandrov, N. N. Demidovich, Yu. F. Pevchev, S. L. Podshibyakin, Yu. V. Pyatkov, A. I. Slyusarenko, A. N. Shemetov, and I. A. Shlyapina.* **1989, No. 3, 532 [38].**

Measuring Complex of Time-of-Flight Spectrometer for Study of Rare Fission Modes of Heavy Nuclei. *A. A. Aleksandrov, N. N. Demidovich, Yu. A. Korzhuk, Yu. F. Pevchev, Yu. V. Pyatkov, S. I. Sitnikov, A. I. Slyusarenko, S. L. Sharov, and A. N. Shemetov.* **1989, No. 4, 779 [44].**

Apparatus for Measurement of Differential Cross Sections of Nuclear Reactions by Spectrum-Superposition Method. *A. A. Gafarov, A. K. Kadishnov, Yu. N. Koblik, B. A. Mazitov, and V. A. Pirogov.* **1989, No. 4, 782 [47].**

High-Speed Spectrometry of Paired Fission Fragments with Event Sampling by Transit Time. *N. A. Kondrat'ev, S. I. Mul'gin, V. N. Okolovich, and A. Ya. Rusanov.* **1990, No. 2, 296 [62].**

Spectrometer for Light Ternary-Fission Products. *I. A. Kukushkin, V. E. Makarenko, Yu. D. Molchanov, G. A. Otroshchenko, and G. B. Yan'kov.* **1991, No. 3, 513 [39].**

2.1.2. Nuclear-radiation spectrometers

Automated Correlation Spectrometer with Two Ge(Li) Detectors. *B. A. Alikov, M. Budzynski, J. Wawryszczuk, K. Ya. Gromov, R. Ion-Michai, E. Krupa, G. I. Luzurei, M. M. Malikov, T. M. Muminov, V. I. Stegailov, V. Tanska-Krupa, V. I. Fominykh, M. I. Fominykh, I. Kholbaev, and V. M. Tsupko-Sitnikov.* **1977, No. 3, 672 [57].**

Apparatus for e–γ Delayed Coincidences Based on a Magnetic Lens Spectrometer and a Ge(Li) Detector. *B. A. Alikov, Ya. Vavryshchuk, G. I. Lizurei, M. M. Malikov, T. M. Muminov, V. I. Stegailov, and R. R. Usmanov.* **1977, No. 5, 1282 [49].**

Measurement of Spectra of Alpha Particles in Coincidence with Characteristic X Radiation and Gamma Radiation. *V. I. Vakatov, Kh. Zodan, R. Kalpakchieva, Yu. Ts. Oganesyan,, Yu. E. Penionzhkevich, V. N. Polyanskii, and L. P. Chelnokov.* **1978, No. 1, 24 [26].**

Anti-Compton Spectrometer with Ge(Li) Semiconductor Detector. *Hoang Dak Lyk.* **1978, No. 2, 308 [41].**

Identification of Nuclides from Scintillation β Spectra. *V. M. Ekkerman and T. N. Seredenko.* **1978, No. 2, 310 [42].**

Possibility of Identifying Particles with Different Charges in Photonuclear Reactions. *A. S. Aleksanyan, A. O. Gasparyan, G. K. Megrabyan, G. G. Mkrtchyan, and R. N. Pikhtelev.* **1978, No. 3, 609 [55].**

Analysis of Operating Quality of a Stabilized Spectrometer for Scattered Gamma Radiation. *O. M. Anshakov and V. A. Chudakov.* **1979, No. 2, 339 [48].**

A Simple Attachment to the SÉS2-03 Gamma Spectrometer. *S. A. Negrei.* **1979, No. 2, 583 [268].**

Possibility of Identifying Nuclear Reaction Products Using Avalanche Counters. *D. Walzog, W. Neubert, Kh. Zodan, and N. K. Skobelev.* **1979, No. 6, 1516 [36].**

Liquid Argon Compton γ Spectrometer. *A. S. Barabash, A. A. Golubev, and O. V. Kazachenko.* **1980, No. 1, 55 [60].**

Experimental Method of Introducing Correction for γ-Ray Self-Absorption in a Specimen. *E. K. Kirilenko, V. K. Maidanyuk, Yu. I. Prokopchuk, and S. P. Sit'ko.* **1980, No. 4, 845 [36].**

A Multichannel System for Measuring the β-Activity Distribution in the Collector of a Mass Separator. *V. A. Karnaukhov, V. D. Kuznetsov, L. A. Petrov, V. V. Popov, M. I. Fominykh, V. I. Fominykh, and V. M. Tsupko-Sitnikov.* **1981, No. 2, 339 [50].**

Axial Spectrometer for Reverse Compton Scattering. *V. E. Rad'ko, A. D. Mokrushin, and I. V. Razumovskaya.* **1981, No. 3, 790 [210].**

Spectrometric Applications of an Ionization-Type Drift Chamber. *V. V. Dmitrenko, A. S. Romanyuk, Z. M. Uteshev, and V. K. Chernyatin.* **1982, No. 1, 50 [51].**

Analysis of Transuranium Radionuclide α Spectra Obtained from Thick Uniform Sources. *E. A. Vznuzdaev and V. I. Orlov.* **1982, No. 1, 57 [57].**

Emission-Type Gamma Spectrometer Working with Liquid Xenon. *I. M. Obodovskii, S. G. Pokachalov, and V. A. Shilov.* **1982, No. 3, 539 [29].**

Stabilized Scintillation Spectrometer for Scattered Low-Energy Gamma Radiation. *O. M. Anshakov, V. A. Chudakov, A. L. Kholmetskii, and V. I. Gurinovich.* **1982, No. 6, 1345 [31].**

Methodological Details of Measuring Large-Volume Samples in Gamma Spectrometers. *V. I. Parkhomenko, É. M. Krisyuk, and É. P. Lisachenko.* **1983, No. 4, 786 [46].**

Improvement of the Parameters of Ge(Li) Spectrometers by Discrimination during the Pulse Rise Time. *A. A. Bogdzel', A. Duka-Zoiomi, Ya. Kliman, and V. Presperin.* **1984, No. 1, 44 [49].**

Conversion-Electron Spectrometer. *J. Guyas, A. Domoni, T. Kibedi, A. Krasnakhorkai, T. Fenes, and Z. Schram.* **1984, No. 3, 570 [53].**

Magnetic-Lens β-Spectrometer with a Silicon Detector and a Sawtooth-Like Changing Current. *V. S. Zazulin, V. I. Kuznetsov, B. M. Makuni, T. V. Chugai, and L. Ya. Shavtvalov.* **1984, No. 4, 835 [50].**

Digital Stabilization of Multichannel Gamma Spectrometer. *V. V. Remeikis.* **1984, No. 6, 1382 [77].**

Instrument for Recording Alpha Radiation. *E. B. Ershov and Yu. A. Ivanov.* **1985, No. 5, 1051 [59].**

Semiconductor Corpuscular-Radiation Spectrometer with 6-keV Energy Resolution. *O. E. Mitrokhin, V. I. Strizhak, and Yu. I. Usikov.* **1986, No. 1, 12 [19].**

Compressed-Xenon Ionization Chamber for Gamma Spectrometry. *V. V. Dmitrenko, A. S. Romanyuk, S. I. Suchkov, and Z. M. Uteshev.* **1986, No. 1, 14 [20].**

Time Characteristics of Spectrometer with Scintillation and Planar Detectors Based on High-Purity Germanium. *V. A. Morozov, V. I. Stegailov, A. K. Kachalkin, G. Lizurei, B. P. Osipenko, F. Prazhak, A. K. Churakov, J. Jurkowski, and I. A. Yutlandov.* **1986, No. 2, 304 [41].**

Use of SKT-04 Semiconductor Spectrometer in Nuclear Microanalysis. *S. N. Gamayunov, A. F. Gurbich, V. D. Maisyukov, A. P. Shevchenko, and V. S. Shorin.* **1986, No. 3, 554 [45].**

Stability of Scintillation Spectrometer with NaI(Tl) Crystal and FÉU-49 Photomultiplier at High Count Rates. *A. S. Belousov, Ya. A. Vazdik, E. N. Malinovskii, S. V. Rusakov, Yu. V. Solov'ev, A. M. Fomenko, and P. N. Shareiko.* **1986, No. 3, 559 [49].**

16-Channel Detector for UMB-1 Beta Spectrometer. *A. P. Amulyavichyus, R. Yu. Davidonis, R. A. Kalinauskas, V. V. Remeikis, S. I. Steponavichyus, and I. I. Tamolyunas.* **1986, No. 3, 593 [79].**

Factors Determining Energy Resolution of Compressed-Xenon Gamma Spectrometers at Densities of >0.6 g/cm. *A. E. Bolotnikov, V. V. Dmitrenko, A S. Romanyuk, S. I. Suchkov, and Z. M. Uteshev.* **1986, No. 4, 802 [42].**

Spectrometric Features of Tungstates. *L. L. Nagornaya and A. S. Cherkasov.* **1986, No. 6, 1285 [45].**

Using Planar Silicon Photodiodes for Precision α Spectrometry. *V. K. Eremin, E. M. Verbitskaya, A. A. Gribov, V. V. Gusakov, N. B. Strokan, S. M. Tairov, U. Sh. Turebekov, and E. V. Shokina.* **1986, No. 6, 1289 [49].**

Spectrometer for Rare Alpha-Decay Events. *A. N. Kuznetsov, V. F. Kushniruk, O. K. Nefed'ev, A. V. Rykhlyuk, V. G. Subbotin, V. I. Tomin, Yu. P. Kharitonov, and Yu. S. Tsyganov.* **1987, No. 1, 35 [36].**

Multiparameter Spectrometer for Analysis of Photonuclear Fragments. *V. M. Khvastunov, V. D. Maisyukov, V. G. Batii, Yu. V. Vladimirov, S. N. Gamayunov, V. Ya. Golovnya, I. G. Evseev, V. P. Likhachev, O. G. Savchuk, and A. P. Shevchenko.* **1988, No. 1, 13 [17].**

Multiplicity Spectrometer for Radiation of Excited Nuclei. *Yu. V. Adamchuk, T. Vokalov, M. A. Voskanyan, A. L. Kovtun, G. V. Muradyan, and Yu. G. Shchepkin.* **1989, No. 1, 54 [54].**

Double Electron Spectrometer. *L. A. Popeko and Yu. P. Rudnev.* **1989, No. 5, 1036 [61].**

Position-Sensitive Gamma Spectrometer. *V. A. Arerev, V. P. Bugrov, N. I. Davidenko, Yu. M. Karpov, N. M. Kopylevich, A. I. Per'kov, S. N. Fedotov, and M. P. Sharak.* **1990, No. 3, 698 [196].**

2.1.3. Positron spectroscopy, gamma–gamma correlations

Apparatus for the Investigation of Positron Annihilation (Review). *V. F. Andreeva, A. V. Dolenko, V. G. Egiazarov, and L. A. Zemlerub.* **1978, No. 5, 1159 [7].**

Automated Spectrometer for Angular Correlations of Electron–Positron Annihilation with Programmable Multicycle Algorithm. *M. N. Svetlov and Yu. P. Kocherga.* **1980, No. 1, 47 [52].**

Measurement of Perturbed Angular Correlation with Single-Crystal Gamma Spectrometer. *V. A. Klyucharev.* **1980, No. 4, 842 [33].**

Fast-Response Spectrometer of Positron Lifetimes. *N. P. Valuev.* **1981, No. 1, 30 [33].**

Chamber Operating between −195 and +800°C for Measuring the Angular Correlation of Two Gamma Radiation Photons by Annihilation. *K. P. Aref'ev, S. A. Vorob'ev, and A. A. Tsoi.* **1981, No. 4, 865 [37].**

Automated Spectrometer for Measuring the Differential Disturbed Angular γ–γ-Correlation. *Z. Z. Aksel'rod, B. A. Komissarova, L. N. Kryukova, G. K. Ryasnyi, S. A. Sergeev, and A. A. Sorokin.* **1982, No. 3, 542 [32].**

Analyzer of the Angular Distribution of Annihilation Photons with an Image Converter. *V. I. Zhavoronkov, A. D. Mokrushin, V. N. Bakulin, K. P. Osokin, and V. M. Syutkin.* **1983, No. 1, 28 [31].**

Difference Technique for the Determination of Positron Lifetimes. *N. P. Valuev and A. N. Zhikharev.* **1984, No. 5, 1090 [43].**

Method of Processing Positron Lifetime Spectra. *N. P. Valuev, A. N. Zhikharev, and A. B. Klimov.* **1984, No. 6, 1344 [42].**

Apparatus for Measuring Angular Gamma-Gamma Correlations in Specimens with Temperatures of 1.5-300°K. *M. Budzyncky, D. Venrek, J. Konicek, T. Lesner, T. Ota, M. Petrik, I. Proohazka, O. Soucek, M. Finger, V. I. Fominykh, V. M. Tsupko-Sitnikov, P. Simicek, A. Janeh, and Z. Yanout.* **1985, No. 3, 552 [49].**

Anomalous Deviations of the Centers of Gravity of Time Distributions of Gamma–Gamma Coincidences with Measurement by Semiconductor Detectors. *V. A. Morozov, V. I. Stegailov, G. Lizurej, N. I. Zhuravlev, A. Misiak, F. Prazak, I. Adam, I. Gradec, and A. K. Churakov.* **1985, No. 3, 555 [52].**

Stable Positron-Lifetime Spectrometer. *I. A. Repin, S. V. Svirida, and A. N. Semenikhin.* **1985, No. 6, 1263 [28].**

Increased Accuracy in Measurement of Angular Distributions of Annihilation Photons. *Yu. A. Novikov, M. K. Filimonov, and V. P. Shantarovich.* **1988, No. 3, 561 [43].**

Method for Computer Processing of Positron-Lifetime Spectra. *A. N. Zhikharev.* **1989, No. 2, 309 [53].**

Positron-Lifetime Spectrometer for Temperature Range of 80-900 K. *M. E. Dubov, R. V. Kopylov, I. A. Repin, A. N. Semenikhin, V. A. Chernyshev, and A. V. Shishkin.* **1990, No. 1, 29 [48].**

Six-Crystal Gamma-Gamma Coincidence Scintillation Spectrometer. *A. V. Berestov, V. I. Gut'ko, and A. M. Khil'manovich.* **1990, No. 2, 301 [67].**

Apparatus for Precise Registration of Decay Curves of Positron Sources. *V. S. Potapchuk and Yu. M. Tsipenyuk.* **1991, No. 3, 516 [42].**

2.1.4. Mössbauer spectroscopy

Methods for Generating and Measuring Pressure in Mössbauer Experiments (Survey). *R. N. Kuz'min and A. A. Opalenko.* **1981, No. 6, 1339 [7].**

Making Allowance for Background in Gamma-Resonance Phase Analysis by Means of Total Resonance Absorption Filter. *A. V. Dolenko, B. G. Egiazarov, V. P. Korneev, A. A. Melik'yan, and A. I. Shamov.* **1977, No. 2, 386 [52].**

Application of Mössbauer Spectroscopy for Phase Analysis. *V. I. Nikolaev, V. M. Belova, and S. Yu. Stefanovich.* **1978, No. 1, 28 [30].**

Source for Mössbauer Studies Based on ^{197}Hg. *V. G. Tsinoev and E. P. Stepanov.* **1978, No. 2, 332 [61].**

Method of Black Absorber in Mössbauer Spectroscopy of ^{119}Sn. *V. A. Varnek.* **1978, No. 4, 921 [79].**

Model of Ultrafast Shutter for Resonant Gamma Rays. *A. N. Altem'ev, K. P. Aleshin, V. S. Sklyarevskii, and E. P. Stepanov.* **1978, No. 4, 924 [82].**

Measurement of the Intensity of Inelastic Scattering of Mössbauer Gamma Quanta. *V. S. Zasimov, R. N. Kuz'min, and N. N. Lobanov.* **1979, No. 3, 654 [41].**

Effect that the Gate Setting of the Recording Apparatus has on the Parameters of Experimental Mössbauer Spectra. *S. D. Karakishev.* **1979, No. 4, 964 [81].**

Method for Monitoring the Law of Motion of Mössbauer Vibrators. *L. Tsankov and K. Burin.* **1979, No. 5, 1250 [57].**

Compound for Calibration of ^{121}Sb Mössbauer Spectra. *A. M. Babeshkin and R. A. Lebedev.* **1979, No. 6, 1514 [35].**

Effective-Thickness Determination for a $Ba^{119m}SnO_3$ Source. *V. A. Varnek.* **1980, No. 1, 39 [44].**

Installation for Studying Transient Processes of Resonance Interaction of Gamma Rays with Nuclei. *V. K. Voitovetskii, V. V. Karmaz', I. L. Korsunskii, I. V. Naumov, A. I. Novikov, Yu. F. Pazhin, Yu. N. Pshonkin, and P. F. Samarin.* **1980, No. 2, 351 [59].**

Laser Velocity Calibrator for a Nuclear Gamma-Resonance Spectrometer. *S. I. Reiman and K. P. Mitrofanov.* **1980, No. 2, 356 [66].**

Technique of Mössbauer Spectroscopy of ^{121}Sb with a ^{121}Te Source. *A. K. Avenirov, S. I. Bondarevskii, and S. A. Timofeev.* **1981, No. 2, 337 [49].**

Use of a High-Resolution Semiconductor Detector in Combination with the Black-Absorber Method to Determine the Probability of Resonance Emission of γ Rays. *V. A. Varnek and V. I. Volegzhanii.* **1982, No. 2, 327 [46].**

Universal Technique of Determining the Background in Quantitative Gamma-Resonance Spectroscopy. *Yu. F. Babikova, N. S. Kolpakov, K. E. Nilov, and I. I. Shtan'.* **1983, No. 4, 783 [44].**

^{181}*Ta Mössbauer Radiation Sources of High Specific Activity. *V. K. Voitovetskii, I. L. Kornuskii, A. I. Novikov, Yu. F. Pazhin, V. A. Pisanko, Yu. N. Pshonkin, A. A. Sverdlina, I. A. Semin, Yu. N. Simirskii, and V. M. Shubko.* **1983, No. 5, 1039 [42].**

Nuclear Gamma Resonance Spectroscopy of Thin Surface Layers. *V. L. Gurachevskii, M. Mashlan, O. V. Misevich, A. L. Kholmetskii, and V. A. Chudakov.* **1985, No. 6, 1274 [38].**

Measurement of Mössbauer Spectra with High Count Rate. *V. A. Varnek and E. V. Tomashevich.* **1986, No. 2, 307 [43].**

Use of an Internal Standard for Measurement of the Area of Mössbauer Spectra. *V. A. Varnek and E. V. Tomashevich.* **1986, No. 2, 310 [46].**

Determination of Degree of Polarization of Resonance Gamma Quanta. *P. P. Kovalenko, V. G. Labushkin, E. R. Sarkisov, A. K. Ovsepyan, and I. G. Tolpekin.* **1986, No. 3, 577 [64].**

Magnet for Mössbauer Spectrometer. *D. A. Khramov and A. V. Polosin.* **1986, No. 3, 753 [223].**

Motion Controller for Mössbauer Spectrometer. *R. A. Manapov, V. V. Leksin, and F. G. Vagizov.* **1986, No. 4, 842 [83].**

2.1.4.1. Spectrometers

Double Mössbauer Spectrometer for Measuring Small Resonance-Line Shifts. *N. N. Delyagin, Yu. D. Zonnenberg, V. I. Nesterov, and S. A. Sergeev.* **1977, No. 3, 660 [48].**

Highly Stable Control Unit for the Moving System in a Mössbauer Spectrometer. *P. K. Kirillov and V. D. Sedykh.* **1979, No. 5, 1251 [58].**

System for Moving a Mössbauer Source Based on Integrated Circuits. *Yu. F. Babikova, N. S. Kolpakov, K. E. Nilov, and M. N. Uspenskii.* **1980, No. 1, 167 [163].**

Mössbauer Spectrometer on the Basis of an AI-1024-4 Multichannel Analyzer. *V. I. Sinyavskii and S. S. Tsarevskii.* **1980, No. 5, 1112 [54].**

Universal Spectrometer for Obtaining Gamma Resonance Spectra of Iron-Containing Materials. *N. S. Kolpakov and R. E. Nilov.* **1981, No. 4, 856 [29].**

Recording Unit of a Mössbauer Spectrometer with Constant Velocities. *V. I. Sinyavskii and I. Yu. Khromov.* **1981, No. 4, 933 [103].**

Mössbauer Spectrometer with Reversing Address Register in an AI-4096-3M Analyzer. *E. G. Arkhontov, O. A. Bayukov, V. P. Ikonnikov, M. I. Petrov, and N. I. Chernov.* **1982, No. 1, 60 [59].**

Double Nuclear Magnetic Gamma Resonance Spectrometer. *S. M. Cheremisin and A. Yu. Dudkin.* **1983, No. 2, 270 [29].**

Setup for Nuclear Gamma Resonance with an NTA-1024 Analyzer. *N. A. Bobrov, V. P. Cherenkov, and V. F. Babanin.* **1983, No. 2, 280 [37].**

Simultaneous Recording of Two Mössbauer Spectra by Means of an NTA-512B or AI-1024-4 Multichannel Analyzer. *V. Yu. Sardushkin, Sh. R. Safin, and V. I. Sinyavskii.* **1983, No. 4, 864 [114].**

Electrodynamic Drive for a Mössbauer Spectrometer. *V. A. Evdokimov and Yu. G. Kononov.* **1983, No. 6, 1277 [28].**

Nuclear Gamma Resonance Spectrometer for Small Specimens. *S. M. Cheremisin, A. Yu. Dudkin, and I. V. Matveev.* **1985, No. 6, 1270 [35].**

Gamma-Resonance System on Line with Microcomputer. *E. V. Bil'dyukevich V. L. Gurachevskii, Yu. A. Litvinovich, M. Mashlan, O. V. Misevich, A. L. Kholmetskii, and V. A. Chudakov.* **1985, No. 6, 1303 [62].**

Digital Reference Generator for Nuclear Gamma-Resonance Spectrometer Based on NTA-1024 Multichannel Analyzer. *S. A. Yur'ev, S. I. Yushchuk, and G. E. Khomyak.* **1986, No. 1, 112 [104].**

Controller for Electrodynamic Drive of Mössbauer Spectrometer. *V. A. Evdokimov, Yu. G. Kononov, A. S. Lobko, and A. A. Fedorov.* **1986, No. 2, 313 [49].**

Mössbauer Spectrometer Based on UNO-4096-90 Accumulator and Elektronika D3-28 Microcomputer for Simultaneous Recording of Four Spectra. *E. S. Romanov and N. G. Ivoilov.* **1986, No. 3, 572 [60].**

Motion Controller for Mössbauer Spectrometer. *R. A. Manapov, V. V. Leksin, and F. G. Vagizov.* **1986, No. 4, 842 [83].**

Programmable Function Generator for Mössbauer Spectrometer. *G. N. Belozerskii, V. G. Semenov, A. A. Sergienko, and A. Yu. Sokolov.* **1986, No. 5, 1058 [69].**

Increasing the Efficiency of NP-255 Mössbauer Spectrometers. *V. V. Leksin, R. A. Manapov, and V. I. Sinyavskii.* **1987, No. 5, 1239 [197].**

Differential Mössbauer Spectrometer. *Yu. A. Kurinyi and Yu. D. Grotov.* **1988, No. 1, 22 [25].**

Mössbauer Spectrometer for Temperature Studies. *V. A. Bychkov, R. V. Kopylov, Yu. V. Petrikin, and S. Yu. Shirokinskii.* **1988, No. 2, 318 [53].**

Device for Stabilization of Center Position of Source of Mössbauer Doppler Modulator. *Yu. A. Kurinyi.* **1988, No. 2, 321 [56].**

Depth-Selective Mössbauer Spectrometer. *V. P. Alekseev, M. V. Lokhanin, and R. A. Stukan.* **1988, No. 3, 554 [37].**

Spectrometric Unit of Mössbauer Spectrometer. *V. A. Evdokimov, Yu. G. Kononov, A. S. Lobko, and A. A. Fedorov.* **1988, No. 3, 558 [40].**

Microcomputer Processing of Nuclear Gamma Resonance Spectra. *S. M. Cheremisin.* **1988, No. 3, 609 [80].**

Effect of Counting Errors on Parameters of Gamma-Resonance Spectra. *S. D. Karakishev and Yu. V. Baldokhin.* **1988, No. 5, 1142 [50].**

Improvement of Motion System of Mössbauer Spectrometer. *V. A. Evdokimov, Yu. G. Kononov, A. S. Lobko, and A. A. Fedorov.* **1989, No. 3, 550 [53].**

System for Mössbauer-Source Movement Using Bipolar Digital-to-Analog Converter. *V. I. Sinyavskii and V. V. Leksin.* **1991, No. 4, 795 [55].**

2.1.4.2. Detectors

Proportional Counter for Scattered γ-Radiation Measurement in Mössbauer Spectroscopy. *N. A. Tomashevskii, O. N. Razumov, and Yu. V. Galushko.* **1977, No. 2, 389 [54].**

Sectional Flow Proportional Counter for Mössbauer Spectroscopy. *L. A. Korytko, F. G. Kulidzhanov, N. S. Medvedeva, V. N. Somov, and A. N. Tolstikov.* **1977, No. 5, 1306 [70].**

Semiconductor n-Si–^{119}Sn Resonant Detector. *B. B. Kovacheva, I. I. Tikhov, and Tsv. V. Bonchev.* **1978, No. 4, 910 [70].**

Low-Background Proportional Resonance Counter for Mössbauer Studies. *N. S. Medvedeva, V. N. Somov, L. A. Korytko, A. N. Tolstikov, E. K. Toshchakov, and V. A. Sozinov.* **1981, No. 1, 49 [50].**

Use of a Ring Detector in the Technique of Rayleigh Scattering of Mössbauer Radiation. *E. É. Gaubman, Yu. F. Krupyanskii, and I. P. Suzdalev.* **1981, No. 3, 620 [57].**

Isomer-Shift Compensation with Resonance Detectors in Mössbauer Spectroscopy. *S. M. Irkaev, V. A. Semenkin, and M. M. Sokolov.* **1981, No. 5, 1151 [53].**

Detector for Obtaining of Nuclear Gamma Resonance Electron Spectra from Small Surface Portions of Samples. *Yu. F. Babikova, O. M. Vakar, A. A. Kasimovskii, and Yu. V. Petrikin.* **1983, No. 2, 283 [40].**

Electron Detector for Mössbauer Spectroscopy Based on Microchannel Plates. *A. P. Amulyavichyus and R. Yu. Davidonis.* **1986, No. 3, 590 [76].**

Comparison of Principal Characteristics of Gas-Discharge Electron Detectors for Mössbauer Spectroscopy. *Yu. V. Petrikin, Yu. V. Baldokhin, A. A. Kiselev, and A. P. Kuprin.* **1989, No. 2, 344 [81].**

2.1.5. Low-background nuclear-radiation spectrometers

Apparatus for the Investigation of Processes of Double Beta Decay (Review). *Yu. G. Zdesenko.* **1980, No. 3, 539 [5].**

Pulse-Shaping Circuit for Low-Background Scintillation Beta Spectrometer with Compound Detector. *E. G. Tertyshnik.* **1978, No. 6, 1480 [25].**

Experimental Setup with Proportional Chambers. A New Instrument for Investigation of Double Beta Decay. *Yu. G. Zdesenko.* **1979, No. 5, 1236 [44].**

Low-Background Setup for Studying Double Beta Decay. *Yu. G. Zdesenko, V. N. Kuts, I. A. Mytsyk, and A. S. Nikolaiko.* **1979, No. 5, 1239 [47].**

Liquid-Xenon Scintillation Gamma Spectrometer. *I. R. Barabanov, V. N. Gavrin, and A. M. Pshukov.* **1985, No. 5, 1034 [45].**

Apparatus for Detection of Double-Beta Decay based on Ge(LI) Detector that is Enriched with the Isotope ^{76}Ge. *A. A. Vasenko, Yu. N. Vereshchagin, I. V. Kirpichnikov, V. A. Kuznetsov, V. N. Prusakov, A. I. Rudnev, A. S. Starostin, and A. V. Tikhomirov.* **1989, No. 2, 312 [56].**

Low-Background Apparatus for Study of Rare Processes of Atomic-Nucleus Decay. *V. V. Vasilenko, F. A. Danevich, N. A. Zhuk, Yu. G. Zdesenko, B. N. Kropivyanskii, V. N. Kuts, A. S. Nikolaiko, and V. I. Tretyak.* **1990, No. 1, 46 [61].**

Low-Background Liquid-Scintillation Alpha–Beta Spectrometer. *L. A. Levina, S. V. Oleinik, A. A. Fedotov, R. F. Ulumbekov, and A. N. Kheruvimov.* **1991, No. 5, 1041 [59].**

2.1.6. Electrostatic and magnetic analyzers

Cryogenic Phase Selector of Electrons Using a Rectangular H_{101} Resonator. *S. V. Blazhevich, E. S. Zlunitsyn, A. I. Zykov, V. A. Kushnir, V. V. Chernyshov, and V. N. Plisko.* **1978, No. 6, 1475 [21].**

Instrument Function of Cylindrical Energy Analyzer in Raster Auger Spectroscopy. *V. A. Gorelik, Yu. P. Mashinskii, T. M. Pikovskaya, and O. D. Protopopov.* **1979, No. 1, 36 [38].**

Electron-Energy Analyzer Based on the Retarding-Field Method for Use in a Gas Medium. *E. D. Mishchenko and A. M. Abdullaev.* **1979, No. 1, 44 [45].**

Compact Notation of Second-Order Ion-Optical Coefficients for Sector Magnetic Analyzer. *A. F. Malov and G. M. Trubacheev.* **1979, No. 2, 337 [47].**

Mass Spectrometer with an Electrostatic Filter "in Line" with an Accelerator. *B. N. Belyaev, L. N. Gall', R. N. Gall', V. D. Domkin, Yu. G. Korobulin, L. M. Krizhanskii, and V. D. Sachenko.* **1979, No. 4, 934 [51].**

Wide-Range Magnetic Analyzer of Reaction Products on a Beam of Heavy Ions. *V. Z. Maidikov, Yu. V. Gofman, G. S. Popeko, and N. K. Skobelev.* **1979, No. 4, 951 [68].**

Electrostatic Analyzer with Variable Field Geometry. *M. M. Dubrovin and V. A. Belyaev.* **1982, No. 6, 1337 [25].**

Panoramic Eight-Channel Magnetic Electron-Energy Analyzer with Circular Poles. *I. N. Volkov, V. I. Mikhailov, G. L. Gromov, and I. N. Slivkov.* **1985, No. 6, 1266 [32].**

Automated System for Testing and Calibration of Magnetic Analyzer. *S. V. Bulatova, V. I. Mikhailov, and V. D. Shkardun.* **1987, No. 6, 1429 [137].**

Study of Rare Nuclear Processes by Time Measurements on a Magnetic Separator. *V. V. Buranov, N. I. Venikov, V. Z. Gol'dberg, A. M. Dobychin, V. I. Dukhanov, V. A. Timofeev, and V. N. Unezhev.* **1990, No. 1, 42 [58].**

2.1.7. Transit-time spectrometers

Experimental Determination of Resolution Function for Time-of-Flight Spectrometer. *Yu. L. Shitikov, M. G. Zemlyanov, and S. P. Mironov.* **1977, No. 4, 960 [35].**

Scintillation Spectrometers Based on the Flight Time. *S. A. Bunyatov, B. Zh. Zalikhanov, V. S. Kurbatov, and A. Khalbaev.* **1978, No. 1, 21 [23].**

Wide-Aperture, Transit-Time, Charged-Particle Spectrometer. *B. M. Abramov, É. A. Airapetov, L. S. Bagdasaryan, I. A. Dukhovskoi, V. V. Kishkurno, A. P. Krutenkova, V. V. Kulikov, M. A. Matsyuk, I. A. Radkevich, E. N. Turdakina, and V. S. Fedorets.* **1979, No. 5, 1245 [52].**

Hadron Spectrometer without a Magnet. *Yu. D. Bayukov, A. E. Buklei, V. B. Gavrilov, N. A. Goryainov, Yu. G. Grishuk, P. V. Degtyarenko, B. L. Druzhinin, N. L. Kornienko, G. A. Leksin, V. P. Surin, V. B. Fedorov, B. A. Fominykh, B. B. Shvartsman, S. V. Shevchenko, and S. M. Shuvalov.* **1982, No. 3, 535 [25].**

Flight-Time System for Recording Cosmic Radiation. *S. A. Voronov, M. V. Guzenko, and S. V. Koldashov.* **1983, No. 4, 780 [42].**

Time-of-Flight Heavy-Ion Spectrometer Using Detectors with Loose Dielectric Emitters. *R. L. Kavalov, S. M. Luk'yanov, Yu. L. Markaryan, Yu. E. Penionzhkevich, and G. G. Chubaryan.* **1985, No. 3, 545 [42].**

Effect of Self-Compensation for Time-Marker Shift in Scintillation Time-of-Flight Systems in Registration of Two-Particle Events. *V. G. Bondarenko, V. A. Grigor'ev, V. A. Kaplin, E. F. Maklyaev, and M. F. Runtso.* **1990, No. 4, 791 [74].**

2.2. High-energy-particle spectrometers

Spectrometers with Large-Volume Detectors (Review). *M. N. Medvedev.* **1984, No. 3, 511 [5].**

BIS-2 Spectrometer for Detection and Study of Narrow Resonances. Staff of BIS-2. *A. N. Aleev et al.* **1991, No. 1, 37 [50].**

"Lambdameter" Detector. *L. S. Vorob'ev et al.* **1991, No. 2, 278 [49].**

Apparatus for Measurement of Spectral and Angular Distributions of Gamma Quanta at Exit from LUÉ-2000 Linear Accelerator. *D. I. Adeishvili, A. P. Antipenko, S. V. Blazhevich, G. L. Bochek, A. A. Kaplii, V. I. Kulibaba, N. I. Maslov, V. D. Ovchinnik, and B. I. Shramenko.* **1991, No. 2, 294 [62].**

Focus Apparatus for Study of Profoundly Inelastic Nuclear Reactions. *Yu. D. Bayukov et al.*. **1991, No. 5, 1030 [50].**

2.2.1. Total-absorption spectrometers, calorimeters

Scintillation Hodoscope with Small FÉU-87 Photomultipliers. *G. A. Saruev, N. A. Rybakova, N. K. Bulgakov, V. M. Kuznetsov, B. N. Kalinin, and V. V. Maneev.* **1977, No. 4, 971 [44].**

Separation of Electron-Photon Cascades with the Aid of a Scintillation Counter System. *E. O. Agasyan, A. S. Aleksanyan, T. L. Asatiani, A. O. Gasparvan, V. A. Ivanov, G. K. Megrabyan, G. G. Mkrtchyan, and R. N. Pikhtelev.* **1977, No. 4, 973 [46].**

Measurement of Coordinate in Hodoscopic Spectrometer. *S. V. Donskov, A. V. Inyakin, V. A. Kachanov, R. N. Krasnokutskii, A. A. Lednev, Yu. V. Mikhailov, Yu. D. Prokoshkin, E. A. Razuvaev, and R. S. Shuvaev.* **1977, No. 4, 976 [49].**

Method of Suppressing Single-Particle Background in Recording Electron–Photon Showers. *B. S. Ishkhanov, Yu. V. Kuznetsov, E. V. Lazutin, I. M. Piskarev, V. A. Khrushchev, T. N. Levchenko, V. P. Popov, and Yu. G. Yakushina.* **1977, No. 4, 1012 [82].**

Characteristics of a Total-Absorption Cerenkov Spectrometer Investigated with Gamma-Quantum, Electron, and Positron Beams. *G. N. Dudkin, B. N. Kalinin, and G. A. Saruev.* **1978, No. 6, 1478 [23].**

Ninety-Channel Cherenkov Mass Spectrometer for High-Energy Electrons and Gamma Quanta (The "Photon" Installation). *G. A. Aberichev, V. V. Arkhipov, R. G. Astvatsaturov, V. V. Bakaev, A. M. Baldin, S. G. Basiladze, L. S. Boitsova, L. B. Golovanov, Yu. V. Zanevskii, A. B. Ivanov, V. I. Ivanov, I. M. Ivanchenko, A. D. Kirillov, E. Knapik, I. F. Kolpakov, V. A. Kramerenko, B. A. Kulakov, Yu. V. Kulikov, B. K. Kuryatnikov, L. G. Makarov, A. I. Malakhov, E. A. Matyushevskii, V. L. Mazarskii, G. L. Melkumov, P. V. Moisenz, V. T. Parshutov, V. D. Peshekhonov, N. N. Plyashkevich, S. N. Plyashkevich, A. E. Senner, V. A. Smirnov, B. M. Starchenko, V. T. Trofimov, M. N. Khachaturyan, A. P. Tsvinev, A. S. Chvyrov, S. P. Chernenko, and R. Firkovski.* **1979, No. 4, 940 [57].**

Distribution of Coordinates of Centers of Gravity of Electromagnetic Showers in Hodoscopic Spectrometers. *N. S. Mel'nikov, E. A. Razuvaev, and V. R. Semenov.* **1980, No. 2, 339 [49].**

Profile of an Electromagnetic Shower in a Gamma-Ray Spectrometer Based on Gas-Discharge Chambers with Automatic Data Collection. *N. K. Vishnevskii, A. G. Lavkin, V. G. Lapshin, N. S. Mel'nikov, and V. K. Semenov.* **1980, No. 3, 594 [53].**

Calibration of the Spectrometer Channels of Multidetector Systems. *L. V. Krasnov and I. G. Yatsyshin.* **1980, No. 5, 1106 [49].**

Measurements of the Electron Energy in the Presence of a Hadron Background with a Lead Glass Cherenkov Gamma Spectrometer. *E. Knappik, V. A. Kramarenko, A. I. Malakhov, and G. L. Melkumov.* **1980, No. 6, 1344 [26].**

Wide-Aperture Scintillation Hodoscope-Spectrometer for Studying Low-Energy Pion Reactions. *Yu. K. Akimov, I. I. Gaisak, D. Dorchioman, D. Lazarovich, S. I. Merzlyakov, K. O. Oganesyan, E. A. Pasyuk, S. Yu. Porokhovoi, and A. I. Rudenko.* **1981, No. 4, 851 [24].**

Resistance Thermometer for Ion-Beam Calorimetry. *S. N. Dolya, V. A. Sviridov, and V. P. Tokarskii.* **1982, No. 6, 1443 [117].**

Simple Hodoscope Spectrometer for Electrons and High-Energy Photons. *Ts. A. Amatuni, Yu. M. Antipov, S. P. Denisov, and A. I. Petrukhin.* **1983, No. 3, 525 [33].**

Large-Area Ionization Calorimeter with Scintillation Detectors. *V. V. Akimov, I. D. Blokhintsev, M. B. Dobriyan, L. F. Kalinkin, V. D. Kozlov, B. T. Karimov, Yu. I. Nagornykh, V. E. Nesterov, A. V. Plyasheshnikov, V. L. Prokin, and V. S. Shmelev.* **1984, No. 1, 83 [82].**

A Calorimeter for High-Energy Hadrons. *V. D. Volovik and I. G. Kozyr'.* **1984, No. 2, 295 [38].**

Front Neutral-Hadron Calorimeter Counters for European Hybrid Spectrometer. *M. Boratav, V. M. Buyanov, E. V. Vlasov, A. P. Vorob'ev, J. David, M. Dykes, Yu. M. Ivanyushenkov, É. P. Kistenev, P. Lutz, N. G. Minaev, D. I. Patalakha, B. Powell, B. F. Polyakov, J. A. Rubio, E. A. Starchenko, and A. G. Kholodenko.* **1984, No. 4, 844 [57].**

Forward Hadron Calorimeter of European Hybrid Spectrometer Monitoring System. *M. Boratave, E. V. Vlasov, J. David, N. A. Datsko, Yu. M. Ivanyushenkov, E. P. Kistenoev, N. G. Minaev, B. F. Polyakov, M. M. Soldatov, and A. G. Kholodenko.* **1985, No. 3, 549 [46].**

Energy Resolution of Cerenkov and Scintillation Shower Spectrometers for High-Energy Particles. *V. V. Samedov.* **1985, No. 3, 580 [74].**

Hodoscopic Scintillation Gamma Spectrometers with Light-Guide Spectrum Mixers. *R. N. Krasnokut'skii, Yu. M. Pishchal'nikov, E. A. Razuvaev, V. K. Semenov, and R. S. Shuvalov.* **1986, No. 1, 33 [35].**

Radial Distributions of Shower Energy Release in Hodoscopic Hadron and Photon Calorimeters. *I. S. Baishev, N. V. Mokhov, and V. R. Semenov.* **1986, No. 3, 568 [57].**

Stabilization and Calibration of Hodoscopic Cerenkov Spectrometer. *A. S. Aleksanyan, A. V. Voskanyan, A. O. Gasparyan, A. Zh. Ketikyan, A. Zh. Petrosyan, and R. N. Pikhtelev.* **1987, No. 4, 793 [40].**

Characteristics of Lead-Glass Hodoscopic Electromagnetic Calorimeter with Aperture of 2 m^2. *G. S. Bitsadze, Yu. A. Budagov, Yu. F. Lomakin, S. N. Malyukov, A. A. Oleinik, N. A. Rusakovich, A. A. Semenov, V. B. Flyagin, Yu. N. Kharzheev, A. B. Iordanov, L. B. Litov, R. V. Tsenov, V. M. Maniev, I. A. Minashvili, and J. Spalek.* **1987, No. 4, 808 [52].**

Automated System for Calibration and Monitoring of Parameters of ChSPP-800 Multichannel Gamma Detector. *I. A. Avvakumov, N. I. Belikov, Yu. M. Goncharenko, A. P. Meshchanin, S. B. Nurushev, and V. L. Solov'yanov.* **1987, No. 4, 817 [59].**

Programmable Manipulator for Control of High-Voltage Supply of Counters of Multichannel Detector. *N. I. Belikov, V. I. In'shakov, L. E. Kulikova, A. P. Meshchanin, S. B. Nurushev, V. P. Romanov, V. V. Skvortsov, V. L. Solov'yanov, E. A. Ustinov, and N. N. Chernyavskii.* **1987, No. 4, 820 [62].**

Resolution of NaI(Tl) Spectrometer in Absorbed-Energy Range of 0.6-125 MeV. *S. A. Gerzon, A. N. Martem'yanov, V. L. Novikov, S. V. Semenov, and V. I. Ushakov.* **1987, No. 5, 1058 [43].**

Foil Adiabatic Calorimeter. *V. P. Suchkov, M. D. Tarasov, and Yu. P. Shcherbak.* **1987, No. 5, 1076 [58].**

Characteristics of Hadron Showers Registered by Cerenkov Radiation in Lead Glass. *G. S. Bitsadze, A. M. Blik, V. N. Kolosov, V. M. Kut'in, I. A. Minashvili, V. A. Polyakov, V. I. Romanovskii, V. I. Rykalin, S. V. Sergeev, and A. S. Solov'ev.* **1988, No. 2, 299 [38].**

Wide-Aperture Total-Absorption Scintillation Spectrometers of Sigma-AYaKS Installation. *Yu. M. Antipov, N. P. Budanov, Yu. P. Gorin, R. Leitner, G. V. Mitsel'makher, A. A. Nozdrin, A. G. Ol'shevskii, and A. I. Petrukhin.* **1988, No. 5, 1124 [36].**

Separation of Electrons and Hadrons by a System Consisting of an Active Converter, a Scintillation Counter, and a Total-Absorption Spectrometer. *R. G. Astvatsaturov, V. V. Arkhipov, S. E. Vasil'ev, A. F. Elishev, E. Knapik, P. K. Man'yakov, S. N. Plyashkevich, S. G. Reznikov, A. I. Shirokov, and M. N. Khachaturyan.* **1988, No. 6, 1427 [55].**

Reconstruction of Electron and Gamma-Quantum Energies in Total-Absorption Spectrometers. *Kh. U. Abraamyan, R. G. Astvatsaturov, M. N. Khachaturyan, and A. G. Khudaverdyan.* **1989, No. 1, 58 [57].**

Analog Method for Separation of Electrons and Hadrons in Layered Scintillation Calorimeters. *V. I. Kryshkin and A. I. Ronzhin.* **1989, No. 2, 325 [67].**

Measurement of Core Coordinate of Electromagnetic Shower by Hodoscope Based on Hodoscopic Photomultipliers in Conjunction with Active Converter of Lead Glass. *V. I. Belousov, A. M. Blik, V. G. Vasil'chenko, A. M. Gorin, V. N. Evdokimov, A. N. Zaichenko, V. N. Kolosov, V. M. Kut'in, V. A. Polyakov, V. I. Romanovskii, V. I. Rykalin, A. S. Solov'ev, and S. L. Chermnykh.* **1989, No. 3, 543 [47].**

Characteristics of Hadron Calorimeter with Cellular Structure Based on Cast Polystyrene Scintillator. *S. I. Bityukov, V. K. Semenov, and A. P. Yablokov.* **1989, No. 4, 794 [58].**

Particle Identification in Combined Hodoscope Calorimeter. *D. Alde, F. Binon, C. Bricman, M. Gouanere, V. S. Datsko, S. V. Donskov, A. V. Inyakin, D. B. Kakauridze, V. A. Kachanov, A. V. Kulik, V. G. Lapshin, A. A. Lednev, E. A. Knapp, G. P. Penier, Yu. D. Prokoshkin, Yu. V. Rodnov, V. I. Rykalin, S. A. Sadovskii, V. D. Samoilenko, A. V. Sin'govskii, J. P. Stroot, V. P. Sugonyaev, G. V. Khaustov, P. M. Shagin, and A. V. Shtannikov.* **1990, No. 1, 53 [68].**

Determination of Coordinates of Electromagnetic-Shower Column in Hodoscope Calorimeter with 2-m^2 Aperture. *G. S. Bitsadze, Yu. A. Budagov, V. V. Glagolev, Yu. F. Lomakin, S. N. Malyukov, A. A. Omel'yanenko, N. A. Rusakovich, A. A. Semenov, Yu. N. Kharzheev, V. Hlinka, P. Povinec, B. Sitar, E. Kladiva, M. Seman, and J. Spalek, A. B. Iordanov, L. B. Litov, R. V. Tsenov, A. M. Artykov, V. M. Maniev, I. A. Minashvili, R. G. Salukvadze, D. I. Khubua, and A. N. Zakharchenko.* **1990, No. 2, 305 [70].**

Electron-Hadron Separation in Cellular Electromagnetic Calorimeter. *Yu. M. Ivanyushenkov, E. P. Kistenev, V. M. Kubik, Yu. M. Pishchal'nikov, and A. G. Kholodenko.* **1990, No. 3, 548 [69].**

Characteristics of Hadron Calorimeter of "Labeled Neutrino" Apparatus. *A. N. Aleev, L. Aleksandrov, V. P. Balandin, E. V. Belyakova, O. P. Gavrishchuk, T. S. Grigalashvili, V. S. Datsko, R. V. Eremeev, M. G. Kadykov, I. G. Kosarev, V. G. Krivokhizhin, N. A. Kuz'min, V. V. Kukhtin, R. Lednitski, S. Nemechek, V. G. Odintsov, D. V. Peshekhonov, Yu. M. Pishchal'nikov, I. A. Savin, V. K. Semenov, G. I. Smirnov, V. I. Suzdalev, A. B. Shabunov, A. B. Shalygin, Ya. Shkvarzhil, and G. A. Yarygin.* **1990, No. 5, 1032 [60].**

Hodoscope Hadron Calorimeter. *Yu. M. Antipov, Yu. P. Gorin, Yu. A. Gornushkin, V. S. Datsko, P. Cantoni, R. Leitner, V. Lelli, G. V. Mitsel'makher, A. A. Nozdrin, A. G. Ol'shevskii, F. Palombo, A. I. Petrukhin, G. M. Solov'eva, and P. L. Frabetti.* **1991, No. 1, 29 [45].**

Separate Detection of Hadrons and Electrons in Combined Calorimeter. *Yu. M. Antipov, Yu. P. Gorin, Yu. A. Gornushkin, R. Leitner, G. V. Mitsel'makher, A. A. Nozdrin, A. G. Ol'shevskii, and A. I. Petrukhin.* **1991, No. 3, 499 [29].**

Energy and Space Resolutions of Steel–Scintillator Hadron Calorimeter with 15-cm Cell. *O. P. Gavrishchuk, V. S. Datsko, R. V. Eremeev, M. G. Kadykov, I. G. Kosarev, V. V. Kukhtin, D. V. Peshekhonov, V. K. Semenov, and A. B. Shalygin.* **1991, No. 3, 504 [33].**

Effect of Cerenkov Radiation in Spectrum-Shifting Light Guide on Characteristics of Hadron Calorimeter. *O. P. Gavrishchuk, V. S. Datsko, R. V. Eremeev, M. G. Kadykov, I. G. Kosarev, V. V. Kukhtin, and V. K. Semenov.* **1991, No. 3, 509 [36].**

Simulation of Hadron Calorimeter of Tagged-Neutrino Facility by Means of GHEISHA Program. *M. G. Kadykov, V. V. Kukhtin, D. V. Peshekhonov, and G. I. Smirnov.* **1991, No. 4, 779 [43].**

Study of Characteristics of Gamma-Irradiated Materials for Calorimeters. *G. I. Britvich, V. G. Vasil'chenko, E. A. Krivandina, A. I. Peresypkin, and B. P. Sobolev.* **1991, No. 4, 789 [51].**

Use of GAMS-2000 Hodoscope Spectrometer to Trigger an Apparatus for Study of Neutral-Meson Production. *D. Alde, F. Binon, M. Gouanere, S. V. Donskov, A. V. Inyakin, V. A. Kachanov, T. Lopez, Yu. V. Mikhailov, E. A. Knapp, J. P. Peigneux, Yu. D. Prokoshkin, V. D. Samoilenko, A. V. Sin'govskii, J. P. Stroot, V. P. Sugonyaev, and P. M. Shagin.* **1991, No. 5, 1036 [55].**

Dependence of Cerenkov-Radiation Intensity on Energy of Hadron Showers Caused by Positive Pions in an Electromagnetic Calorimeter. *G. V. Velev, V. V. Glagolev, S. N. Malyukov, I. A. Minashvili, N. A. Rusakovich, N. L. Rusakovich, and G. A. Chlachidze.* **1991, No. 5, 1048 [65].**

2.2.2. Magnetic spectrometers

Strong-Focusing Magnetic Analyzer for Recording Charged Particles in the Region Up to 700 MeV/c. *B. N. Kalinin, V. M. Kuznetsov, G. A. Saruev, N. K. Bulgakov, V. V. Mameev, and N. A. Rybakova.* **1978, No. 3, 598 [45].**

Si(Li) Electron Spectrometer with Superconducting Transporting Magnets. *Z. Maté, I. Mahunka, D. Morik, D. Novak, F. Tarkani, T. Fenyes, and K. Fyule.* **1978, No. 5, 1197 [41].**

High-Speed Photorecorders for the Five-Meter Magnetic Spark Spectrometer of the Joint Institute for Nuclear Research. *E. M. Andreev, V. I. Aparin, I. M. Vasilevskii, A. T. Vasilenko, Z. Zhenchikevich, N. D. Krakhotin, V. A. Moiseenko, V. L. Rybakov, and N. S. Tolstoi.* **1979, No. 4, 956 [73].**

Electrode Module of the Streamer Chamber of the "RISK" Spectrometer. *L. S. Vertogradov, Ya. V. Grishkevich, B. A. Murav'ev, G. Peter, V. I. Petrukhin, D. Pose, H. Tom, A. Schwindt, G. A. Shelkov, and K. Spiring.* **1981, No. 4, 860 [32].**

Possible Use of a Wide Source in Spectrographs with a Homogeneous Magnetic Field. *A. A. Abdumalikov, A. A. Abdurazakov, A. Kh. Inoyatov, Yu. N. Novikov, A. M. Nurmukhamedov, G. A. Kononenko, and V. M. Tsupko-Sitnikov.* **1984, No. 5, 1074 [30].**

Devices for an Electron Magnetic Spectrometer. *V. G. Bragin, I. N. Shabanova, and V. A. Trapeznikov.* **1984, No. 6, 1509 [188].**

Magnetic Spectrometer Based on Multiwire Proportional Chambers. *A. M. Baranov, V. I. Baskakov, G. B. Bondarenko, P. S. Vasil'ev, I. L. Gavrilenko, B. A. Dolgoshein, V. P. Konovalov, S. P. Konovalov, A. M. Konstantinov, S. V. Murav'ev, V. K. Semenov, and A. P. Shmeleva.* **1985, No. 3, 543 [40].**

Hyperon Spectrometer. *V. A. Antyukhov et al..* **1985, No. 5, 1021 [35].**

Magnetic Scintillation Electron Spectrometer. *S. A. Voronov, A. M. Gal'per, M. V. Guzenko, V. G. Kirillov-Ugryumov, S. V. Koldashov, A. V. Popov, and V. Yu. Chesnokov.* **1986, No. 2, 296 [35].**

Telescope of Proportional Chambers for SP-103 Magnetic Spectrometer of LU-2GeV Linear Accelerator. *V. F. Popov, A. E. Zatserklyanyi, A. A. Nemashkalo, Yu. N. Ranyuk, and V. F. Chechetenko.* **1987, No. 3, 528 [35].**

System of Proportional Chambers for Magnetic Spectrometer. *L. S. Azhgirei, G. F. Akimova, L. V. Budkin, I. K. Vzorov, P. V. Zrelov, M. A. Ignatenko, Yu. A. Kozhevnikov, A. S. Kuznetsov, V. N. Samoilov, and G. D. Stoletov.* **1987, No. 4, 797 [44].**

Magnetic Spectrometer with Streamer Chamber in Experiment to Study Formation Processes of Particles with High Transverse Momenta. RISK Staff. *A. V. Bannikov, J. Behm, L. S. Vertogradov, S. Vyskochil, Ya. V. Grishkevich, A. Derlicki, A. K. Dzhavrishvili, W. Dominik, P. Zavada, J. Zakrzewski, Z. V. Krumshtein, M. Kudla, W. Kusmesz, T. A. Lomtadze, S. Maewski, Yu. P. Merekov, A. A. Nikolina, V. I. Petrukhin, K. Pishka, L. G. Tkachaev, V. V. Tokmenin, A. I. Kharchilava, N. N. Khovanskii, B. A. Khomenko, Sh. Tsellar, K. Shafarik, and G. A. Shelkov.* **1990, No. 4, 758 [46].**

Apparatus for Event Sampling in Experiment to Study $\mu^+\mu^-$ Pair Production on Magnetic Spectrometer with Streamer Chamber. *D. Adam, A. V. Bannikov, J. Behm, L. S. Vertogradov, S. Vyskochil, A. K. Dzhavrishvili, P. Zavada, Z. V. Krumshtein, T. A. Lomtadze, Z. Mikhaii, A. A. Nikolina, V. I. Petrukhin, K. Pishka, V. V. Tokmenin, N. N. Khovanskii, B. A. Khomenko, E. G. Tskhadadze, K. Shafrik, G. A. Shelkov, and J. Jani.* **1990, No. 4, 767 [54].**

Mariya-2 Magnetic Charged-Particle Spectrometer. *S. A. Voronov, A. M. Gal'per, S. V. Koldashov, V. V. Mikhailov, P. Yu. Naumov, A. V. Popov, and V. Yu. Chesnokov.* **1991, No. 2, 290 [59].**

2.2.3. Charged-particle-beam spectrometers

Lamb Shift Polarimeter of Slow-Proton Beams. *Yu. A. Plis and L. M. Soroko.* **1977, No. 3, 656 [44].**

Device for Continuously Monitoring the Energy Spectrum of an Electron Beam. *K. A. Vinogradov.* **1979, No. 3, 650 [38].**

Spectrometry of Powerful Pulsed Electron Beams. *P. I. Filimoncheva, V. V. Plokhoi, L. Yu. Samoilova, V. N. Afanas'ev, Ya. Z. Kandiev, V. D. Dartsev, and V. F. Khokhryakov.* **1979, No. 6, 1520 [40].**

Spectrometer for High-Current Hollow Electron Beams. *S. P. Bugaev, K. A. Dergobuzov, A. N. Karmadonov, B. A. Kononov, V. I. Koshelev, and N. I. Yagushkin.* **1979, No. 6, 1524 [44].**

Highly Accurate Spectrometer for Muon Experiments. *A. I. Klimov, A. E. Meleshko, B. A. Nikol'skii, and V. I. Selivanov.* **1980, No. 1, 51 [56].**

System of Drift Chambers of FODS Spectrometer. *A. V. Alekseev, B. Yu. Baldin, S. I. Bityukov, Yu. B. Bushnin, V. Yu. Glebov, A. F. Dunaitsev, A. K. Konoplyannikov, V. I. Kryshkin, N. Yu. Kul'man, G. I. Lanshchikov, V K. Myalitsin, V. G. Rybakov, R. M. Sulyaev, A. N. Sytin, and L. K. Tutchanovich.* **1980, No. 4, 847 [38].**

A Spectrometer for Studying the Channeling of 8.4-GeV Protons in Single Crystals. *A. S. Vodop'yanov et al..* **1981, No. 2, 324 [36].**

Measurement of the Energy of Negative Pions with a Multilayer Semiconductor Spectrometer. *M. G. Gornov, Yu. B. Gurov, S. V. Lapushkin, A. S. Lukin, P. V. Morokhov, K. O. Oganesyan, B. P. Osipenko, V. A. Pechkurov, A. P. Pichugin, A. K. Ponosov, S. Yu. Porokhovoi, F. M. Sergeev, and A. L. Kholmetskii.* **1981, No. 2, 330 [42].**

Setup for Measuring the Fragmentation Spectra of Relativistic Deuterons and a Particles. *V. G. Ableev, S. A. Avramenko, G. G. Vorob'ev, S. A. Dolgii, S. A. Zaporozhets, A. V. Karpunin, A. A. Kukushkin, Yu. V. Kulikov, D. K. Nikitin, A. A. Nomofilov, N. M. Piskunov, I. M. Sitnik, E. A. Strokovskii, L. N. Strunov, A. Filipkovski, and V. I. Sharov.* **1983, No. 1, 31 [33].**

High-Speed Automated Proton Spectrometer. *P. A. Demchenko, N. P. Klimko, A. G. Koval', and V. N. Plotnikov.* **1985, No. 5, 1031 [42].**

Measurement of Average Proton Energy in 1-GeV Region by Two-Cone and Differential Cerenkov Methods. *V. P. Zrelov, V. P. Lupil'tsev, and I. V. Mirokhin.* **1986, No. 5, 1011 [27].**

Automated Scintillation Spectrometer. *O. I. Andronov, V. G. Brovchenko, S. T. Evdokimov, A. V. Parshin, A. A. Petrov, and M. M. Tsygankov.* **1986, No. 5, 1026 [40].**

Semiconductor Spectrometer for Beams of Low-Energy Positive Pions. *I. I. Gaisak, M. G. Gornov, Yu. B. Gurov, S. I. Merzlyakov, K. O. Oganesyan, B. P. Osipenko, E. A. Pasyuk, S. Yu. Porokhovoi, A. I. Rudenko, A. A. Khomutov, and A. V. Shishkov.* **1988, No. 1, 19 [22].**

2.2.4. Labeling spectrometers

Vekton-1 Double-Arm Spectrometer for ρ^- Photomeson Production. *M. V. Anokhin, A. R. Kanetsyan, V. M. Kukarev, É. R Markaryan, N. I. Nikitin, V. M. Kharitonov, S. G. Arakelyan, Zh. B. Grigoryan, I. A. Keropyan, M. V. Melkumyants, I. S. Amirkhanova, S. S. Arutyunyan, E. M. Boyakhchyan, and E. N. Shcherbakova.* **1977, No. 2, 376 [42].**

Two-Arm Spectrometric Arrangement for Studying (γ, $p\pi^-$) Reaction on Nuclei. *P. S. Anan'in, I. V. Glavanakov, M. N. Gushtan, A. P. Kashirin, and V. N. Stibunov.* **1977, No. 5, 1284 [51].**

Method of Measuring Photoproton Spectra with Suppression of the Electron Background. *V. V. Varlamov, I. M. Kapitonov, V. I. Shvedunov, and A. V. Shumakov.* **1980, No. 6, 1347 [30].**

System of Labelling Bremsstrahlung Photons with Muon Background Suppression. *Yu. A. Aleksandrov, S. S. Baranov, A. S. Belousov, N. P. Budanov, Ya. A. Vazdik, B. B. Govorkov, V. V. Kim, V. A. Kozlov, L. M. Kreiskop, V. A. Maishcheev, E. I. Malinovskii, V. V. Pavlovskaya, V. I. Sergienko, Yu. V. Solov'ev, E. I. Tamm, A. M. Frolov, and V. A. Khablo.* **1981, No. 4, 867 [39].**

Two-Target Setup for Investigating the Photoproduction of Vector Mesons. *Yu. A. Aleksandrov, S. S. Baranov, A. S. Belousov, N. P. Budanov, Ya. A. Vazdik, B. B. Govorkov, V. V. Kim, V. A. Kozlov, L. M. Kreiskop, E. I. Malinovskii, V. V. Pavlovskaya, B. I. Sergienko, Yu. V. Solov'ev, E. I. Tamm, V. A. Khablo, and L. N. Shtarkov.* **1981, No. 4, 869 [41].**

Apparatus for Measuring the Emission Cross Section of γ Radiation Photons in Inelastic Interactions of High-Energy Protons with Nuclei. *L. P. Moskaleva, S. M. Shestimerov, O. S. Manvelyan, and A. D. Dudin.* **1982, No. 3, 548 [37].**

Sampling of Events in Research Experiments on Mu-Atomic and Mesomolecular Processes. *V. M. Bystritskii, A. I. Rudenko, V. M. Suvorov, N. N. Khovanskii, and B. A. Khomenko.* **1983, No. 4, 789 [48].**

Radiation Resistance of Gamma-Detector Modules of Labeling Station of Labeled-Neutrino Complex. *Yu. M. Pishchal'nikov.* **1988, No. 2, 323 [58].**

Selection of π^0- and η-Mesons in Inclusive Reactions. *A. N. Vasil'ev, V. K. Myalitsyn, L. F. Solov'ev, V. L. Solov'yankov, and B. V. Chuiko.* **1989, No. 1, 64 [61].**

Apparatus for Study of Inelastic Production of Neutral Pions with Identification of the Final State of the Nucleus. *G. A. Naumenko, V. N. Stibunov, E. V. Repenko, E. N. Shuvalov, and L. E. Yalova.* **1990, No. 3, 539 [62].**

Characteristics of Hadron Calorimeter of "Labeled Neutrino" Apparatus. *A. N. Aleev, L. Aleksandrov, V. P. Balandin, E. V. Belyakova, O. P. Gavrishchuk, T. S. Grigalashvili, V. S. Datsko, R. V. Eremeev, M. G. Kadykov, I. G. Kosarev, V. G. Krivokhizhin, N. A. Kuz'min, V. V. Kukhtin, R. Lednitski, S. Nemechek, V. G. Odintsov, D. V. Peshekhonov, Yu. M. Pishchal'nikov, I. A. Savin, V. K. Semenov, G. I. Smirnov, V. I. Suzdalev, A. B. Shabunov, A. B. Shalygin, Ya. Shkvarzhil, and G. A. Yarygin.* **1990, No. 5, 1032 [60].**

Tagging System of High-Energy Photons. *V. A. Baskov, V. V. Kim, I. V. Konorov, V. I. Sergienko, and V. A. Khablo.* **1990, No. 6, 1297 [69].**

2.2.5. Techniques for study of kinematic characteristics of particles

Instrument for Multiparametric Analysis of Kinematics of Fission-Fragment Scattering. *M. N. Andronenko, I. N. Sinogeev, G. E. Solyakin, Yu. A. Chestnov, and V. E. Shashmin.* **1977, No. 4, 978 [51].**

Measuring System of Instrument for Multiparametric Analysis of Kinematics of Fission-Fragment Scattering. *M. N. Andronenko, I. N. Sinogeev, G. E. Solyakin, Yu. A. Chestnov, and V. A. Shashmin.* **1977, No. 4, 980 [53].**

Apparatus for the Study of the Scattering of Electrons by Atomic Nuclei in Storage-Ring Experiments. *P. I. Baturin, B. A. Lazarenko, D. M. Nikolenko, S. G. Popov, and Yu. G. Ukraintsev.* **1978, No. 4, 869 [38].**

Equipment and Computer Software for Experiment on Scattering of Polarized Protons from Hydrogen and Nuclei. *A. E. Buklei, N. N. Govorun, V. V. Zhurkin, I. M. Ivanchenko, V. P. Kanavets, N. N. Karpenko, L. N. Kondrat'ev, I. I. Levintov, V. I. Martynov, O. E. Mikhailov, B. V. Morozov, V. M. Nesterov, I. I. Pershin, N. N. Pomelov, L. M. Polyakova, V. V. Ryl'tsov, and T. S. Cherkalina.* **1980, No. 3, 586 [46].**

Allowance for Instrumental Errors in Experiments on Double Scattering of Elementary Particles. *N. D. Gagunashvili, R. Ya. Zul'karneev, and Kh. Murtazaev.* **1980, No. 3, 591 [50].**

Apparatus for Measuring the Energy Spectra of Scattered Photons in a Bremsstrahlung Beam. *B. S. Ishkhanov, V. I. Mokeev, Yu. A. Novikov, and I. M. Piskarev.* **1981, No. 3, 622 [59].**

A Method of Measuring the Left–Right Asymmetry and of Restoring the Polarization of Fast Protons Emitted in Reactions of the Type $p + A \rightarrow p + ...$ at 640 MeV. *N. V. Vlasov, R. Ya. Zul'karneev, N. A. Kuz'min, R. Kh. Kutuev, and Kh. Murtazaev.* **1981, No. 5, 1130 [34].**

Determination of the Angular Resolution of Apparatus for Muon Scattering by Nuclei. *V. P. Chernyshev, G. K. Bysheva, O. A. Vaisenberg, L. L. Gol'din, A. V. Semenov, and G. K. Tumanov.* **1983, No. 5, 1019 [26].**

Chamber for Measurement of the Scattering Cross Sections in the Small-Angle Region. *E. A. Romanovskii, V. S. Nemtsov, G. S. Tyurikov, R. B. Begzhanov, I. R. Gulamov, G. S. Valiev, T. Iskhakov, and A. V. Tsupin.* **1983, No. 5, 1022 [28].**

Methods of Investigation of Multiple Scattering of Charged Particles. *B. G. Skorodumov, Z. P. Kiseleva, I. I. Trinkin, and V. N. Kadushkin.* **1984, No. 3, 566 [50].**

Method of Determining Correlations from a Two-Dimensional Scattering Pattern. *V. V. Samedov.* **1984, No. 5, 1087 [40].**

Measurement of Angle Characteristics of Scattering Chamber. *K. A. Kuterbekov and A. V. Yushkov.* **1986, No. 3, 543 [35].**

Apparatus for Study of Muon Stops in Gas Target "Without Walls". *G. F. Bin'ko, V. N. Grebenev, Yu. B. Gurov, Yu. P. Dobretsov, V. P. Dzhelepov, V. G. Zinov, V. G. Kirillov-Ugryumov, A. A. Maloletnev, A. L. Mikaelyan, A. P. Pichugin, V. V. Fil'chenkov, and N. N. Khal'ko.* **1990, No. 4, 772 [58].**

2.3. Neutron spectrometry

Method of Determining Local Flux Density of Fast Monochromatic Neutrons. *L. I. Klochkova and B. S. Kovrigin.* **1977, No. 1, 41 [40].**

Possible Use of Wall Traps and Magnetic Traps of Ultra-Cold Neutrons for Measuring the Lifetime of the Free Neutron. *Yu. Yu. Kosvintsev, Yu. A. Kushnir, V. I. Morozov, and G. I. Terekhov.* **1977, No. 1, 43 [42].**

Measuring Neutron Absorption Cross Sections. *E. A. Pavlenko and N. L. Gnidak.* **1977, No. 3, 653 [42].**

Experimental Determination of Resolution Function for Time-of-Flight Spectrometer. *Yu. L. Shitikov, M. G. Zemlyanov, and S. P. Mironov.* **1977, No. 4, 960 [35].**

Superposition Recording Method for Neutron Crystal Spectrometer. *V. P. Glazkov, V. A. Somenko, and Sh. Shil'shtein.* **1977, No. 4, 969 [43].**

Measurement of Quasifree Neutron-on-Neutron Scattering in Cyclotrons. *V. I. Grantsev, I. P. Dryapachenko, V. A. Kornilov, O. F. Nemets, V. M. Pugach, B. A. Rudenko, B. G. Struzhko, and O. M. Bilaniuk.* **1978, No. 1, 17 [20].**

Use of Helium Scintillation Counter in a Time-of-Flight Neutron Spectrometer for Measurements in the Energy Interval 0.4-4 MeV. *O. D. Brill'.* **1978, No. 3, 611 [57].**

Fully Automatized Triaxial Crystal Neutron Spectrometer. *A. E. Golovin, G. I. Zadokhin, M. G. Zemlyanov, N. I. Karpov, Yu. M. Krasnikov, V. P. Moryakov, I. V. Naumov, P. P. Parshin, A. Yu. Rumyantsev, V. A. Somenkov, and N. A. Chernoplekov.* **1978, No. 4, 862 [31].**

Shielding of Analyzer Crystal of Neutron Spectrometer. *V. S. Bondarevskii, M. G. Zemlyanov, V. P. Moryakov, I. V. Naumov, P. P. Parshin, and A. Yu. Rumyantsev.* **1979, No. 1, 40 [41].**

Fast-Neutron Spectrometer Based on an Electrostatic Charge-Exchange Accelerator. *A. M. Trufanov, V. S. Nesterenko, N. I. Fetisov, G. N. Lovchikova, V. G. Demenkov, O. A. Sal'nikov, V. A. Romanov, A. I. Glotov, V. I. Spirin, G. V. Kotel'nikova, and V. S. Bashmakov.* **1979, No. 2, 342 [50].**

Transit-Time Neutron Diffractometer for Studying Monocrystals. *B. N. Anan'ev, A. M. Balagurov, I. P. Barabash, Z. Georgiu, and V. D. Shibaev.* **1979, No. 2, 347 [55].**

A Possible Method of Recording Small Changes in the Energy of Ultracold Neutrons. *Yu. N. Pokotilovskii, A. D. Stoika, and I. G. Shelkova.* **1980, No. 1, 58 [62].**

Organization of Experiments on Storage of Ultracold Neutrons and Analysis of the Results. *V. I. Morozov and G. I. Terekhov.* **1980, No. 4, 837 [29].**

Spectrometer for Inelastically Scattered Slow Neutrons in the "Fakel" Accelerator. *S. N. Ishmaev, I. P. Sadikov, A. A. Chernyshov, and B. A. Vindryaevskii.* **1981, No. 4, 848 [21].**

Multidetector Neutron Flight-Time Diffractometer in the "Fakel" Accelerator. *B. A. Vindryaevskii, S. N. Ishmaev, V. D. Podshibyakin, I. P. Sadikov, M. N. Severov, and A. A. Chernyshov.* **1981, No. 5, 1135 [38].**

Neutron Radiation Monochromators Made from Highly Oriented Pyrographite. *A. A. Chernyshov, M. N. Severov, E. I. Neproshin, A. V. Kharitonov, and N. N. Shipkov.* **1981, No. 5, 1139 [42].**

A Method for Determining the Flux and Energy Spectrum of Neutrons Using Deuterium–Titanium and Tritium–Titanium Targets. *Yu. A. Nemilov, Yu. A. Selitskii, S. M. Solov'ev, V. B. Funshtein, and S. V. Khlebnikov.* **1981, No. 6, 1356 [23].**

Stabilization System for Neutron-Spectrometer Gain. *A. V. Bukharov, S. S. Verbitskii, E. N. Zhuravlev, A. M. Lapik, V. S. Ratner, M. A. Tikanov, and V. P. Shchitov.* **1982, No. 1, 53 [53].**

Efficient Fast-Neutron Registration System in Muon Experiments. *V. G. Zinov, V. S. Nadezhdin, A. I. Rudenko, L. N. Somov, and V. V. Fil'chenkov.* **1982, No. 2, 303 [26].**

Combined Spectrometer for Small-Angle and Diffuse Scattering of Cold Neutrons. *V. S. Bedbenov and G. A. Oganezov.* **1982, No. 6, 1340 [28].**

Using the Parallel Recording Technique in Neutron Diffraction Studies on Single Crystals. *S. G. Teploukhov, V. V. Chernobrovkin, L. A. Vysotskaya, B. N. Goshchitskii, M. B. Dorofeeva, S. F. Dubinin, A. I. Kozlov, and S. K. Sidorov.* **1983, No. 3, 530 [37].**

Improvement of the Resolution of a Time-of-Flight Neutron Spectrometer with a Reciprocal Filter, Using a Pyrographite Crystal Analyzer. *V. V. Sumin, V. N. Kanepit, and S. P. Solov'ev.* **1983, No. 5, 1007 [15].**

Automated Neutron Diffractometer. *V. I. Kadashevich, Ya. A. Kasman, L. P. Kolesnikova, V. P. Plakhtii, V. A. Priemyshev, S. M. Ruzin, V. N. Slyusar', O. P. Smirnov, K. I. Turapina, and Yu. P. Chemenkov.* **1984, No. 1, 34 [41].**

Spectrometer with High Angular Resolution and Double Monochromatization of a Neutron Beam. *Yu. G. Abov, F. G. Kulidzhanov, N. O. Elyutin, and S. N. Nizovoi.* **1984, No. 4, 838 [52].**

A System Recording the Information Obtained from a Multidetector Neutron Diffractometer. *V. V. Chernobrovkin, M. B. Dorofeeva, S. G. Teploukhov, S. A. Kiryukhin, L. A. Vysotskaya, and S. F. Dubinin.* **1984, No. 5, 1079 [34].**

Automated Universal Experimental Complex for the Study of Neutron-Nucleus Interaction. *A. A. Sarkisov, A. M. Boguslavskii, A. G. Guseinov, V. N. Ivanov, and I. N. Martem'yanov.* **1984, No. 6, 1342 [40].**

Thermostat for Neutron-Diffraction Apparatus. *E. N. Kozlov, V. O. Nikolaev, S. E. Tsirkunova, and S. N. Skovorod'ko.* **1985, No. 2, 308 [43].**

Selective Fast-Neutron Spectrometry. *E. A. Andreev, V. K. Basenko, S. A. Pshenichnyi, S. P. Sit'ko, and V. A. Stepanenko.* **1985, No. 3, 559 [55].**

Neutron Spectrometer with Pulse-Shape Gamma-Quantum Discrimination. *S. N. Belyaev, A. B. Kozin, T. N. Mamedov, V. S. Roganov, and A. A. Solnyshkin.* **1985, No. 6, 1278 [41].**

Fast-Neutron Scintillation Spectrometer with Gamma Compensation for Measuring Spectra and Fluxes of Neutrons with Energies of 0.5-16 MeV. *V. M. Golovkov, V. N. Letov, I. A. Pavel'eva, and E. T. Protasevich.* **1985, No. 6, 1282 [45].**

Highly Stable Fast-Neutron Time-of-Flight Spectrometer. *A. P. Degtyarev, I. B. Mikhnitskii, and G. A. Prokopets.* **1986, No. 3, 551 [42].**

Reconstruction of Neutron Energy Spectra from Calorimetric Measurements on the Serpukhov Accelerator. *V. P. Balandin, E. A. Belogorlov, A. P. Vorob'ev, T. S. Grigalashvili, B. N. Gus'kov, V. P. Zhigunov, Yu. M. Ivanyushenkov, E. P. Kistenev, M. F. Likhachev, B. F. Polyakov, A. G. Kholodenko, and E. A. Chudakov.* **1987, No. 4, 803 [48].**

Experimental Apparatus for Study of Polarization Effects in Charge-Exchange Reactions of Charged Mesons to Neutral Final States. *I. A. Avakumov, V. D. Apokin, N. I. Belikov, N. S. Borisov, É. I. Bunyatova, A. N. Vasil'ev, Yu. M. Goncharenko, O. A. Grachev, A. A. Derevshchikov, Yu. M. Kazarinov, M. Yu. Liburg, V. N. Matafonov, Yu. A. Matulenko, A. P. Meshchanin, A. A. Morozov, A. I. Mysnik, A. B. Neganov, B. S. Neganov, S. B. Narushev, A. F. Prudkoglyad, V. L. Rykov, V. V. Siksin, L. F. Solov'ev, V. L. Solov'yanov, Yu. A. Usov, and B. A. Khachaturov.* **1987, No. 5, 1062 [46].**

Gravitational Neutron Monochromator. *Yu. V. Grigor'ev.* **1988, No. 2, 292 [33].**

Neutron-Diffraction Studies of Materials with Large Thermal-Neutron Absorption Cross Sections. *V. F. Petrunin, A. G. Ermolaev, and F. M. Zelenyuk.* **1988, No. 2, 296 [36].**

Direct Calibration of Time Scale of Cold-Neutron Spectrometer. *P. P. Parshin, M. G. Zemlyakov, A. S. Ivanov, and A. B. Tyugin.* **1988, No. 3, 567 [46].**

Thermal Stabilization of Perfect-Crystal Neutron Spectrometer. *A. O. Eidlin, Yu. I. Smirnov, N. O. Elyutin, and F. G. Kulidzhanov.* **1988, No. 3, 569 [48].**

STOIK Triaxial Perfect-Crystal Neutron Spectrometer. *I. V. Naumov, S. A. Petushkov, K. M. Podurets, V. A. Somenkov, A. B. Tyugin, and S. Sh. Shil'shtein.* **1988, No. 5, 1132 [42].**

Spectrometer for Neutrons with Energies of >20 MeV for Studies in Radiation Physics. *A. R. Krylov and G. N. Timoshenko.* **1989, No. 3, 537 [42].**

Apparatus for Neutron Studies of Condensed Media under High Pressure with Inverse-Geometry Spectrometer. *S. Khabrylo, S. I. Bragin, E. Brankowski, K. Zawalski, W. Iwanski, J. Maier, W. Nawrocik, and I. Natkanec.* **1989, No. 5, 1039 [63].**

^{3}He Spectrometer for Study of the Time and Energy Distributions of Delayed Neutrons. *B. P. Maksyutenko, Yu. F. Balakshev, S. V. Ignat'ev, V. I. Mil'shin, Yu. V. Minko, A. N. Mironov, and V. N. Tsarev.* **1989, No. 6, 1289 [52].**

Measurement of Neutron Polarization. *M. I. Tsulaya, M. S. Gabeliya, and S. I. Dzhamaspishvili.* **1991, No. 1, 58 [69].**

Statistical Analysis of Errors of Measurements by Double-Crystal Neutron Spectrometer. *A. V. Krasnikov, D. S. Denisov, N. O. Elyutin, S. K. Matveev, and A. O. Éidlin.* **1991, No. 2, 317 [82].**

2.4. Cosmic-radiation spectrometers, gamma telescopes

Expanded Setup for Recording Horizontal Air Showers. *V. D. Volovik, L. I. Zalyubovskii, A. T. Kaminskii, and V. M. Kartashev.* **1977, No. 2, 379 [45].**

Scintillation Time-of-Flight Telescope for Cosmic-Ray Studies. *V. G. Bondarenko, V. A. Grigor'ev, E. F. Maklyaev, and M. F. Runtso.* **1977, No. 3, 666 [53].**

Semiconductor X-Ray Spectrometer with Optical Feedback. *A. M. Zubareva, S. Iliev, V. F. Kushniruk, A. V. Rykhlyuk, V. G. Subbotin, and Yu. P. Kharitonov.* **1978, No. 3, 604 [50].**

Gamma Telescope of the "Kosmos-461" Satellite. *Yu. A. Gur'yan, E. P. Mazets, I. A. Sokolov, R. L. Aptekar', and V. N. Panov.* **1978, No. 4, 866 [35].**

Time-of-Flight Scintillation Telescope with Logic Sampling Circuit. *D. Yu. Akimov and Yu. D. Kotov.* **1981, No. 2, 347 [58].**

Flight-Time System with Automatic Adjustment and Logic Sampling of Information for the Nataliya-2 Telescope. *D. Yu. Akimov, S. E. Belenko, Yu. D. Kotov, O. N. Romanov, and V. T. Samoilenko.* **1982, No. 4, 828 [45].**

Flight-Time System for Recording Cosmic Radiation. *S. A. Voronov, M. V. Guzenko, and S. V. Koldashov.* **1983, No. 4, 780 [42].**

Gamma Spectrometer with 800-cm^2 Sensitive Area for Space-Physics Research. *F. A. Agaronyan, A. G. Akhperdzhanyan, G. A. Vartapetyan, P. I. Galumyan, A. S. Glyanenko, Yu. M. Karpov, A. V. Kurochkin, L. A. Pogosyan, and V. T. Samoilenko.* **1985, No. 4, 772 [38].**

Scintillation Gamma Spectrometer for Determining Arrival Direction of Cosmic Gamma Quanta. *O. I. Savun, S. A. Belyakov, and O. V. Kislyakov.* **1985, No. 4, 774 [39].**

Magnetic Scintillation Electron Spectrometer. *S. A. Voronov, A. M. Gal'per, M. V. Guzenko, V. G. Kirillov-Ugryumov, S. V. Koldashov, A. V. Popov, and V. Yu. Chesnokov.* **1986, No. 2, 296 [35].**

Instrument for Registration of Nuclear Fluxes in Near Outer Space. *N. V. Alekseev, P. V. Vakulov, Yu. P. Gordeev, N. L. Grigorov, D. A. Zhuravlev, V. P. Sechinov, V. Ya. Shiryaeva, and B. M. Yakovlev.* **1988, No. 1, 49 [47].**

Automatic Event-Sampling System for Gamma Telescope. *V. A. Grigor'ev, I. V. Kalinin, V. A. Kaplin, E. G. Klyuchnik, V. A. Loginov, P. Yu. Naumov, and M. P. Sharapov.* **1988, No. 5, 1136 [45].**

High-Transmission Spectrometer for Study of the Chemical Composition of the Nuclear Component of Cosmic Radiation in the Energy Range of 5-30 MeV/Nucleon. *N. L. Grigorov, B. V. Kryuchkov, V. N. Lopatin, V. V. Platonov, S. É. Rozental', L. G. Smolenskii, Yu. E. Penionzhkevich, and N. A. Shcherbakov.* **1990, No. 1, 33 [51].**

Sensitivity of Compton Gamma Telescope. *A. Yu. Gurov and S. N. Fedotov.* **1990, No. 1, 39 [56].**

Gamma Telescope with One-Dimensional Coded Aperture. *V. A. Aref'ev, V. P. Bugrov, A. V. Volchanskii, A. Yu. Gurov, E. V. Korotkova, A. I. Per'kov, S. N. Fedotov, and M. P. Sharak.* **1990, No. 4, 776 [61].**

"Irina" Magnetic Charged-Particle Spectrometer for Space-Physics Research. *A. N. Veretennikov, S. A. Voronov, A. M. Gal'per, M. V. Guzenko, V. G. Zverev, A. A. Moiseev, P. Yu. Naumov, A. V. Popov, M. N. Soboleva, and V. Yu. Chesnokov.* **1990, No. 5, 1023 [53].**

Comparison of Gamma-Telescope Sensitivities in the Energy Range of 1-5 MeV. *A. Yu. Gurov and S. N. Fedotov.* **1990, No. 5, 1060 [83].**

2.5. Spectrometry of x-ray, transition, characteristic, and bremsstrahlung radiations, Auger spectrometry

Physics and Technology of Compton-Profile Measurement (Survey). *V. E. Rad'ko.* **1989, No. 2, 263 [15].**

Method of Studying Changes in Structure of Thin Samples. *V. K. Gorshkov, L. N. L'vov, and V. D. Kalantarov.* **1977, No. 3, 652 [40].**

Elemental Analysis of Biological Specimens by Proton Excitation of Characteristic X-Ray Emission. *A. N. Dedik, A. P. Klyucharev, N. F. Severin, A. G. Strashinskii, N. V. Serykh, N. A. Skakun, G. K. Khomyakov, and A. I. Chumachenko.* **1977, No. 5, 1299 [64].**

Instrument Function of Cylindrical Energy Analyzer in Raster Auger Spectroscopy. *V. A. Gorelik, Yu. P. Mashinskii, T. M. Pikovskaya, and O. D. Protopopov.* **1979, No. 1, 36 [38].**

Instrument for the Investigation of the Surface Structure of Crystals by the Electron Diffraction Method. *L. A. Titov, S. S. Romanov, and G. K. Zyryanov.* **1979, No. 1, 42 [43].**

Germanium X-Ray Spectrometer. *N. Ya. Sedov, G. A. Shishkina, B. M. Bezymyannykh, and T. M. Pershikova.* **1979, No. 5, 1254 [61].**

Method of Studying the Process of Electron–Positron Pair Production in a Bremsstrahlung Beam. *V. S. Grishin, B. S. Ishkhanov, A. A. Koptelov, Yu. A. Novikov, and I. M. Piskarev.* **1981, No. 3, 626 [62].**

Resonant Nuclear Scattering in Intensity Measurement for an X-Ray Beam. *V. I. Mokeev, E. S. Omarov, and I. M. Piskarev.* **1981, No. 3, 630 [66].**

Electron-Optical Auger Spectrometer System with a Cylindrical Mirror. *A. I. Volkov, E. V. Krasnenkov, N. E. Menabde, I. M. Ovchinnikov, R. F. Potapov, and N. M. Sudak.* **1982, No. 2, 308 [30].**

Graphic Method of Determining the Phonon Characteristics from Single-Phonon Coherent Scattering of Neutrons. *V. I. Bobrovskii, I. L. Zhdakhin, and B. N. Goshchitskii.* **1984, No. 1, 48 [52].**

A Spectrometer for Measuring the Spectra of the Characteristic Energy Losses of Fast Electrons in Thin Metal Foils. *K. A. Moldasanov, and M. V. Zharnikov.* **1984, No. 2, 278 [25].**

Crystal-Diffraction Spectrometer of Increased Efficiency. *A. I. Saukov, G. A. Gornitsyn, and N. A. Morozov.* **1984, No. 5, 1066 [25].**

Measurement of Polarization of Coherent Bremsstrahlung of 900-MeV Electrons in Diamond for Photon-to-Electron Energy Ratio of ≤ 0.15. *P. S. Anan'in, I. E. Vnukov, V. N. Zabaev, B. N. Kalinin, A. P. Potylitsyn, E. V. Repenko, V. M. Tarasov, and V. K. Tomchakov.* **1985, No. 3, 538 [36].**

Apparatus for Study of the Spectral-Angular Characteristics of the X-Radiation of Relativistic Electrons of Medium Energy in Single Crystals. *D. I. Adeishvili, S. V. Blazhevich, G. L. Bochek, V. I. Kulibaba, V. P. Lapko, V. L. Morokhovskii, G. L. Fursov, and A. V. Shchagin.* **1989, No. 3, 546 [50].**

Measurement of Bremsstrahlung Spectra of Relativistic Electrons in Single Crystals by Total-Absorption Detector. *M. Yu. Andreyashkin, V. N. Zabaev, B. N. Kalinin, G. A. Naumenko, A. P. Potylitsyn, I. S. Tropin, and L. E. Yalova.* **1989, No. 6, 1293 [55].**

Spectrometer of Characteristic Energy Losses of Fast Electrons in Thin-Film Specimens. *M. V. Zharnikov, V. D. Gorobchenko, and G. V. Pilyagin.* **1990, No. 2, 383 [135].**

Combined Auger-Electron Spectrometer and Reverse-Viewing Diffractometer. *V. G. Antipov, I. B. Bol'shunov, and S. S. Romanov.* **1990, No. 4, 898 [166].**

2.6. Processing of spectrometric-research data

Interpolation of Response Function of Gamma-Ray Spectrometers by Splines. *N. G. Volkov, V. I. Dorogov, and Yu. I. Malakhov.* **1977, No. 3, 663 [50].**

Preparation of Events Measured on HPD for Geometric Reconstruction. *F. Kotorobai, B. I. Moroz, and A. I. Rodionov.* **1977, No. 5, 1287 [54].**

Identification of Nuclides from Scintillation β Spectra. *V. M. Ekkerman and T. N. Seredenko.* **1978, No. 2, 310 [42].**

Effective Method of Experimental-Data Reduction Using the Technique of Multichannel Pulse-Height Analysis. *O. A. Anisimov, A. B. Doktorov, and V. D. Zhidkov.* **1978, No. 3, 602 [49].**

Criteria for Identification of a Reaction and Rejection of Poorly Measured Events. *A. R. Linetskii, G. Ya. Lyubarskii, and N. E. Sagalovich.* **1979, No. 5, 1233 [42].**

Using Game Methods to Eliminate Overlapping Pulses in Gamma Spectrometry. *M. I. Skopyuk and V. A. Shevchenko.* **1980, No. 2, 355 [63].**

Error Estimate in Measuring Dose Power of Terrigenous Gamma Radiation. *É. M. Krisyuk, N. D. Vol'zhonok, I. V. Chubinskii-Nadezhdin, and V. I. Parkhomenko.* **1980, No. 3, 618 [74].**

Experimental Method of Introducing Correction for γ-Ray Self-Absorption in a Specimen. *E. K. Kirilenko, V. K. Maidanyuk, Yu. I. Prokopchuk, and S. P. Sit'ko.* **1980, No. 4, 845 [36].**

Method of Identifying Low-Energy Ions from Their Masses with the Aid of Computer. *A. T. Rudchik, O. Yu. Goryunov, V. N. Dobrikov, O. F. Nemets, V. T. Kotlyarov, and P. N. Svetlichnyi.* **1980, No. 4, 875 [65].**

Analysis of the Instrumental α-Ray Spectrum with Account for the Low-Energy Part of the Response Function of a Semiconductor Detector. *A. F. Gurevich.* **1981, No. 5, 1149 [51].**

Analysis of Transuranium Radionuclide α Spectra Obtained from Thick Uniform Sources. *E. A. Vznuzdaev and V. I. Orlov.* **1982, No. 1, 57 [57].**

Selective Analysis of Signals with Recording of Spectra Distributed over the Memory of a Multichannel Analyzer. *M. V. Sazhin and V. P. Dombrovskii.* **1982, No. 1, 74 [71].**

Investigation of the Influence of Additional Criteria upon the Quality of Programs for Searching Peaks. *P. M. Gopych and V. A. Deryuga.* **1983, No. 5, 1016 [23].**

Automatic Control of Data Acquisition in Nuclear Reaction Experiments. *S. B. Kumshaev, R. G. Ofengenden, P. N. Svetlichnyi, V. N. Urin, and A. M. Yasnogorodskii.* **1984, No. 3, 575 [57].**

Method of Improving the Amplitude Resolution of the Spectra of Gamma-Transition Cascades in the Computer Processing of Encoded Coincidence Data. *A. M. Sukhovoi and V. A. Khitrov.* **1984, No. 5, 1068 [27].**

Method of Processing Positron Lifetime Spectra. *N. P. Valuev, A. N. Zhikharev, and A. B. Klimov.* **1984, No. 6, 1344 [42].**

Amplitude Distribution of Output Signals of Cerenkov and Scintillation Shower Spectrometers. *V. V. Samedov.* **1985, No. 5, 1037 [47].**

Determination of Linear Combination of Spectral Responses of n Detectors That Approximates Spectral Response of Detector n + 1. *V. K. Lyapidevskii and L. B. Samoilova.* **1986, No. 2, 329 [63].**

Microcomputer-Based System for Gamma-Spectrum Recording and Processing. *B. P. Sabanin, N. P. Barabanov, and M. Yu. Maksimov.* **1988, No. 4, 842 [23].**

Effect of Counting Errors on Parameters of Gamma-Resonance Spectra. *S. D. Karakishev and Yu. V. Baldokhin.* **1988, No. 5, 1142 [50].**

Reconstruction of Electron and Gamma-Quantum Energies in Total-Absorption Spectrometers. *Kh. U. Abraamyan, R. G. Astvatsaturov, M. N. Khachaturyan, and A. G. Khudaverdyan.* **1989, No. 1, 58 [57].**

Method for Computer Processing of Positron-Lifetime Spectra. *A. N. Zhikharev.* **1989, No. 2, 309 [53].**

Estimation of Probability of Source Detection in Nuclear-Physics Measurements with Stationary Background. *A. I. Per'kov and S. N. Fedotov.* **1989, No. 5, 1082 [100].**

New Method for Determination of Corrections for Counting Errors Due to the Dead Time of Ionizing-Radiation Sensors. *J. Sabol.* **1989, No. 6, 1315 [74].**

3. PARTICLE DETECTORS

3.1. Track chambers

3.1.1. Bubble, diffusion chambers

Capacitor Chambers. *I. A. Avchiev.* **1977, No. 4, 991 [63].**

Discharge-Diffusion Chamber with Working Volume 60 × 45 × 18 cm. *T. T. Barnaveli, N. S. Grigalashvili, A. K. Dzhavrishvili, Z. Sh. Mandzhavidze, and T. I. Sharabidze.* **1979, No. 1, 47 [48].**

Automated Method of Determining the Fission-Fragment Track Density in Solid-State Track Detectors with the Aid of the MAGMO-1 System. *V. S. Bychenkov, V. D. Dmitriev, A. I. Obukhov, and O. E. Shigaev.* **1979, No. 1, 49 [50].**

SKAT Bubble Chamber: Housing and Main Structural Components. *V. I. Ermolaev, E. P. Kuznetsov, O. I. Mikhailov, M. A. Samarin, V. I. Snyatkov, A. V. Astakhov, V. A. Bol'shakov, G. A. Crad, I. F. Malyshev, and V. N. Odintsov.* **1979, No. 3, 657 [43].**

Photoregistration System of the SKAT Bubble Chamber. *A. I. Boginskii, V. I. Ermolaev, N. P. Zhuravlev, S. N. Zimin, V. A. Krendelev, E. P. Kuznetsov, O. I. Mikhailov, N. A. Netyaga, V. Ya. Potapov, V. G. Rybakov, V. I. Rybachenko, V. I. Snyatkov, V. S. Filippov, and A. N. Sharykin.* **1979, No. 3, 661 [47].**

Pressure-Changing System for the SKAT Propane–Freon Bubble Chambers. *V. M. Androsenko, V. I. Ermolaev, I. N. Ivakhnenko, V. I. Kozlov, V. M. Korablev, V. A. Krupnov, E. P. Kuznetsov, V. V. Makeev, O. I. Mikhailov, M. A. Samarin, V. I. Snyatkov, N. A. Chabrov, A. V. Astakhov, V. A. Bol'shakov, and G. A. Grad.* **1979, No. 3, 665 [50].**

Magnet for the SKAT Bubble Chamber: Main Parameters and Magnetic Field Measurements. *A. I. Boginskii, E. P. Kuznetsov, V. V. Makeev, O. I. Mikhailov, Yu. G. Ryabov, V. I. Snyatkov, G. A. Grad, N. I. Doinikov, and V. P. Muratov.* **1979, No. 3, 670 [54].**

Using HPD Automatic Equipment for Evaluating Photographs of the BEBC Chamber. *A. A. Borovikov, V. V. Bryzgalov, I. A. Gritsaenko, M. M. Gubaeva, S. A. Gumenyuk, L. F. Zaitsev, Yu. L. Petrovykh, G. N. Khromova, and A. B. Fenyuk.* **1983, No. 4, 802 [59].**

The 700-liter Xenon Bubble Chamber "Diana". *V. V. Barmin, V. N. Borisov, V. M. Golubchikov, A. I. Gorokhov, V. I. Demekhin, V. S. Demidov, A. G. Dolgolenko, G. A. Kolpashchikov, N. S. Konoplev, M. M. Kutepov, A. G. Meshkovskii, A. A. Nikitin, A. P. Solov'ev, M. S. Khropov, I. V. Chuvilo, and B. A. Shebanov.* **1984, No. 4, 850 [63].**

Laser System for the Holographic Recording of Information from Track Detectors. *E. Bartke, I. Ts. Ivanov, and Ya. Éksnerova.* **1984, No. 4, 866 [76].**

Dosage of Particles for a Bubble Chamber in the Microsecond Range of Beam Extraction Times. *N. S. Bryukhanov, B. A. Vakhromeev, K. I. Gubrienko, V. E. Zelenin, V. I. Kotov, and B. V. Prosin.* **1984, No. 6, 1346 [44].**

Emission Images in Condensation Chamber. *N. A. Klyachin, V. K. Lyapidevskii, and V. Yu. Maksimov.* **1990, No. 5, 1036 [64].**

Helium Bubble Chamber. *S. K. Abdullin et al..* **1991, No. 1, 53 [64].**

High-Temperature Diffusion Chamber. *N. A. Klyachin, V. K. Lyapidevskii, and V. Yu. Maksimov.* **1991, No. 2, 311 [77].**

System for Pulse Modulation of Particle-Beam Intensity for Fast-Circulation Bubble Chamber. *B. A. Vakhromeev, V. I. Kotov, V. N. Lyamin, Vl. N. Lyamin, V. P. Panov, N. A. Pokidov, B. V. Prosin, O. V. Romanov, A. A. Romashchin, Yu. A. Samorodov, and V. A. Ushakov.* **1991, No. 5, 1019 [41].**

3.1.2. Spark, streamer chambers

Simulating Charged-Particle Tracks in Radiation Detectors by Means of X-Ray and Laser Beams (Review). *E. M. Gushchin, A. N. Lebedev, and S. V. Somov.* **1985, No. 1, 1 [7].**

Operation of Wire Spark Chambers in Extreme Conditions. *V. A. Viktorov, V. A. Kachanov, A. A. Lednev, G. P. Makarov, Yu. D. Prokoshkin, A. N. Prokhorov, V. A. Sergeev, Yu. N. Simonov, and V. P. Sugonyaev.* **1977, No. 1, 24 [26].**

Pulse Transformer-Based High-Voltage System of a Streamer Chamber. *Ya. V. Grishkevich, G. Peter, D. Poze, Kh. Ruger, K. Trützschler, and A. Schwind.* **1977, No. 1, 30 [31].**

Filling Streamer Chambers by the Scavenging Technique. *A. T. Matyushin, V. T. Matyushin, Zh. Zh. Musul'manbekov, and N. N. Nugrozhin.* **1977, No. 1, 34 [35].**

Multipulse High-Voltage Supply for Filmless Spark Chambers. *P. I. Fillipov.* **1977, No. 4, 988 [60].**

Two-Gap Spark Chamber with an Area of 6 m^2. *Yu. E. Zvonkov, K. A. Kotel'nikov, and S. B. Shaulov.* **1977, No. 5, 1301 [66].**

Four-Electrode Streamer Chamber. *V. D. Volodin, N. S. Glagoleva, N. I. Kaminskii, E. A. Matyushevskii, A. T. Matyushin, V. T. Matyushin, and V. A. Trofimov.* **1978, No. 3, 621 [66].**

Automatic Measurement of the Ionization of Streamer Tracks. *V. V. Koshtoev and E. Ya. Lerman.* **1978, No. 3, 624 [69].**

Filmless Method of Controlling the Memory Time of a Streamer Chamber. *V. D. Volodin, N. S. Glagoleva, A. T. Matyushin, V. T. Matyushin, Zh. Zh. Musul'manbekov, and N. N. Nurgozhin.* **1978, No. 4, 890 [54].**

Installation SKM-200 with Two-Meter Streamer Chamber in a Magnetic Field. *A. U. Abdurakhimov, M. Kh. Anikina, A. M. Baldin, S. G. Basiladze, G. L. Vardenga, V. D. Volodin, N. S. Glagoleva, A. I. Golokhvastov, A. G. Grachev, E. A. Dement'ev, V. G. Ivanov, M. S. Zhuravleva, N. I. Kaminskii, P. S. Kuznetsov, Yu. Lukstin'sh, P. K. Manyakov, E. A. Matyushevskii, A. T. Matyushin, V. T. Matyushin, M. G. Meshcheryakov, Zh. Zh. Musul'manbekov, N. N. Nurgozhin, É. O. Okonov, G. I. Oleinik, V. A. Stepanenko, Kh. Khmelevski, S. A. Khorozov, Yu. A. Cherepanov, and É. A. Shevchenko.* **1978, No. 5, 1210 [53].**

Investigation of the Integrated Brightness of Tracks in a Streamer Chamber with the Aid of a Photomultiplier. *C.-P. Glasneck, Ya. V. Grishkevich, Z. V. Krumshtein, D. Pose, V. M. Suvorov, and J. Schuler.* **1978, No. 5, 1216 [58].**

Joint Operation of a Streamer Chamber and Conversi Hodoscopic Tubes. *V. V. Govorov, V. A. Davidenko, B. A. Dolgoshein, A. N. Lebedev, and S. V. Somov.* **1979, No. 2, 353 [60].**

High-Voltage Supply Circuit for Multigap Spark Chambers. *P. S. Anan'in, I. V. Glavanakov, A. P. Kashirin, and V. N. Stibunov.* **1979, No. 2, 359 [66].**

Tskhra-Tskaro Wide-Gap Spark Chamber. *Yu. A. Gromov, D. M. Kotlyarevskii, S. D. Kananov, V. G. Matsaberidze, I. V. Morozov, T. B. Metreveli, V. M. Rappoport, M. M. Taglanov, P. V. Tsomaya, T. I. Sharabidze, and G. Z. Shemanetyan.* **1979, No. 4, 962 [79].**

Wire-Electrode Track Spark Chamber of Area 11 m^2. *N. N. Nurgozhin, B. N. Akhmedov, A. I. Dauletbakov, and Zh. Zh. Musul'manbekov.* **1979, No. 5, 1256 [63].**

Measurement of Time of Spark Formation in a Spark Chamber for α and β Particles. *P. S. Anan'in, O. A. Sidulenko, and E. V. Fotin.* **1979, No. 5, 1260 [68].**

Effects of Gamma Radiation on Efficiency of Registration of Fission Fragments in a Spark Counter. *V. L. Kuznetsov, V. G. Nedorezov, and N. V. Nikitina.* **1979, No. 5, 1265 [72].**

Wire Spark Chamber with Additional Electrode. *V. M. Berezin, E. T. Bogdanov, M. E. Vishnevskii, M. O. Vlasova, N. D. Galanina, É. T. Gedvillo, N. P. Dobrovol'skaya, A. M. Lipkin, V. N. Markizov, V. V. Memelov, V. A. Murysov, A. Ya. Ostapchuk, F. A. Pavlovskii, V. A. Sadykov, Yu. A. Semenov, E. I. Tarkovskii, N. A. Khaldeeva, and V. I. Chistilin.* **1980, No. 1, 61 [64].**

Broad-Gap Spark Chambers in Memory Operation. *O. E. Gorchakov and A. V. Dem'yanov.* **1980, No. 5, 1098 [42].**

Measuring the Intensity of the Photon Beam on a Setup with a Streamer Chamber. *Yu. M. Arkatov, P. I. Vatset, V. I. Voloshchuk, V. A. Zolenko, and I. M. Prokhorets.* **1981, No. 1, 39 [42].**

Photographic Recording of Tracks in a Streamer Chamber. *M. M. Zhuk, V. P. Protasov, and V. M. Ulanov.* **1981, No. 2, 343 [54].**

Track Photography in an 8-m Streamer Chamber. *N. Z. Anisimova, V. A. Davidenko, V. A. Kantserov, V. G. Rybakov, and S. V. Somov.* **1981, No. 5, 1142 [44].**

System of Parallel Power Supplies for Spark Chambers. *S. A. Voronov, S. V. Koldashov, A. A. Moiseev, and A. V. Popov.* **1981, No. 5, 1144 [47].**

Streamer Chamber for Studying Photoproduction of π^0-Mesons in Helium. *P. S. Anan'in, M. N. Gushtan, G. N. Dudkin, A. V. Pirogov, and V. N. Stibunov.* **1981, No. 6, 1368 [34].**

A 5-m Streamer Chamber. *A. K. Dzhavrishvili, T. A. Lomtadze, Z. Sh. Mandzhavidze, A. I. Kharchilava, and A. Yu. Shtaerman.* **1981, No. 6, 1371 [37].**

Cyclic Operation of a Streamer Chamber. *N. A. Lapauri, V. A. Mikhailov, and Z. T. Tarkashvili.* **1982, No. 1, 63 [62].**

Operation of Multigap Projection-Type Spark Chambers. *B. M. Golovin, Yu. A. Gornushkin, V. S. Nadezhdin, and N. I. Petrov.* **1982, No. 5, 1088 [47].**

Ionization Measurements and Investigation of the Time-Dependent Discharge Characteristics of a Spark Chamber. *P. S. Anan'in and V. N. Stibunov.* **1983, No. 3, 539 [45].**

Electron Streamer Tracks in Neon under Pressure. *V. D. Volodin, N. S. Glagoleva, E. A. Dement'ev, A. A. Kuznetsov, E. A. Matyushevskii, A. T. Matyushin, and V. D. Matyushin.* **1983, No. 4, 804 [60].**

Measurements of the Track Drift in a Streamer Chamber. *E. M. Gushchin, A. N. Lebedev, and S. V. Somov.* **1983, No. 6, 1283 [34].**

Feeding Large Wide-Gap Spark Chamber with High-Voltage Radio Frequency Pulses. *T. L. Asatiani, S. V. Alchudzhyan, L. I. Kozliner, and G. S. Martirosyan.* **1984, No. 1, 54 [58].**

A System for the Control and Stabilization of the High-Voltage Supply of Streamer Chambers. *L. S. Vertogradov, Ya. V. Grishkevich, T. A. Lomtadze, V. V. Tokmenin, Yu. Fedorovich, and G. A. Shelkov.* **1984, No. 2, 298 [41].**

Tracks Produced by an N_2 Laser in a Streamer Chamber. *E. M. Gushchin, A. N. Lebedev, and S. V. Somov.* **1984, No. 3, 546 [33].**

Increasing the Sensitivity of Photographic Film for Track Photography in Streamer Chambers. *A. A. Artamonov, E. M. Gushchin, V. V. Zhukov, A. N. Lebedev, and S. V. Somov.* **1984, No. 4, 858 [70].**

Angular Resolution of Wide-Gap Spark Chambers with a Coding Collimator for γ-Rays of an Energy above 50 MeV. *S. A. Voronov, V. M. Zemskov, A. A. Moiseev, Yu. V. Ozerov, V. A. Rud'ko, and Yu. T. Yurkin.* **1984, No. 6, 1352 [49].**

Adjustment and Monitoring of the Parameters of the High-Voltage System of a Streamer Chamber. *L. S. Vertogradov, T. A. Lomtadze, B. A. Khomenko, and G. A. Shelkov.* **1985, No. 2, 289 [26].**

Improvement of the Reliability of Wide-Gap Spark Chambers Operating in the Storage Regime. *V. A. Mikhailov.* **1985, No. 2, 311 [45].**

Shock Tensometer for Multiwire Chambers. *F. E. Zyazyulya, S. M. Korenchenko, and V. S. Smirnov.* **1986, No. 1, 163 [143].**

Photon-Induced Electron Detachment by Laser Radiation in a Streamer Chamber as a Means of Localizing Tracks. *M. A. Tombak.* **1986, No. 6, 1293 [53].**

Study of Space Resolution of Plastic Streamer Tubes. *I. A. Golutvin, V. Kh. Dodokhov, V. Yu. Karzhavin, Yu. T. Kiryushin, L. V. Komogorova, V. N. Lysyakov, D. Poze, and S. Riemann.* **1987, No. 1, 44 [43].**

Laser System for Coordinate Referencing of an Emulsion Target to a Streamer Chamber. *E. M. Gushchin, A. N. Lebedev, V. A. Ryabov, and S. V. Somov.* **1987, No. 6, 1303 [29].**

Study of Cathodes for Spark Counter with Localized Discharge. *Yu. N. Pestov and K. N. Putilin.* **1988, No. 6, 1448 [71].**

Converters in Streamer Chamber of RISK Magnetic Spectrometer. *A. V. Bannikov, Ya. Bem, L. S. Vertogradov, S. Vyskochil, Ya. V. Grishkevich, A. K. Dzhavrishvili, Z. V. Krumshtein, T. A. Lomtadze, V. I. Petrukhin, A. I. Kharchilava, E. G. Tskhadadze, and G. A. Shelkov.* **1989, No. 2, 328 [69].**

Supply System for Large-Area Two-Section Film Spark Chambers. *V. A. Mikhailov.* **1989, No. 3, 553 [55].**

Streamer Chamber of SKIP Magnetic Spectrometer. *E. M. Gushchin, A. N. Lebedev, V. A. Ryabov, S. F. Somov, and G. I. Tipografshchik.* **1990, No. 4, 779 [63].**

3.1.3. Photographic emulsions, solid-state thin-film detectors

Dielectric Track Detectors and Their Potential for Use in Neutron Registration (Review). *A. V. Belousov, V. N. Polunin, and A. I. Shchebet.* **1981, No. 1, 1 [7].**

Electrochemical Etching of Plastic Track Detectors (Review). *A. A. D'yakov.* **1984, No. 2, 253 [5].**

Recording Rare Nuclear Fission Events in Thin Layers of Plastic by the Matching Method. *O. Otgonsurén, V. P. Perelygin, and S. G. Stetsenko.* **1977, No. 2, 383 [49].**

Heavy-Charged-Particle Detectors Based on Fluoroplastics. *S. P. Tret'yakova and L. V. Dzholos.* **1978, No. 1, 35 [36].**

Effect of a Pulsed Electric Field on Nuclear Emulsion Exposed to Cosmic Rays. *A. B. Akopova, N. V. Magradze, L. V. Melkumyan, and I. P. Prokhorenko.* **1978, No. 2, 330 [59].**

Detection of Fission Fragments with Thin-Film, Solid-State Capacitors. *Yu. P. Gangrskii, M. B. Miller, and V. R. Utenkov.* **1980, No. 2, 374 [79].**

Study of the Process of Etching of Charged-Particle Tracks by the Conductometric Method. *P. Yu. Apel' and S. P. Tret'yakova.* **1980, No. 3, 600 [58].**

Method of Determining the Absolute Sensitivity of Nuclear Emulsions to Proton Beams with an Energy of ~1 MeV. *E. V. Gusev, P. A. Demchenko, I. K. Koval'chuk, N. A. Khizhnyak, and N. G. Shulika.* **1980, No. 5, 1120 [62].**

Evaluation of Glass Detectors of Tracks with the Aid of the MAGMO Instrument. *V. E. Kopchenov and V. A. Nikolaev.* **1981, No. 1, 36 [39].**

Dielectric Charged-Particle Detector with KCl as the Active Substance. *S. N. Gukasyan, R. L. Kavalov, M. P. Lorikyan, N. N. Trofimchuk, and R. Zh. Khachatryan.* **1981, No. 1, 45 [47].**

Erasing of a Latent Image in a Photoemulsion by a Pulsed Electric Field. *B. A. Dolgoshein, A. N. Lebedev, and S. V. Somov.* **1982, No. 2, 329 [48].**

Electrochemical Enhancement of Tracks of Nuclear Fission Fragments. *S. P. Tret'yakova and L. V. Dzholos.* **1982, No. 3, 565 [52].**

Method of Determining the Thickness of Nuclear Photoemulsions in Autoradiography. *V. D. Rusov, M. Yu. Semenov, and V. A. Barsuk.* **1982, No. 6, 1357 [42].**

Influence of Atmospheric Pressure upon the Recording Properties of Track Detectors Made from Polymers. *A. I. Shchebet, V. N. Polunin, and A. V. Belousov.* **1983, No. 6, 1290 [39].**

Instrument for Recording Heavy Cosmic-Ray Particles with Dielectric Detectors. *E. V. Gorchakov, N. L. Grigorov, V. A. Iozenas, R. A. Nymmik, Yu. V. Trigubov, and G. G. Zenchev.* **1984, No. 2, 290 [35].**

Technique for Changing the Sensitivity of Dielectric Track Detectors. *G. E. Belyaev, V. V. Kushin, V. K. Lyapidevskii, and N. B. Khokhlov.* **1984, No. 3, 554 [40].**

Use of Electric Field to Increase Nuclear Emulsion Sensitivity. *A. Ya. Didenko, B. D. Lemeshkov, and I. N. Moroz.* **1985, No. 3, 590 [83].**

Determination of Registration Time of Heavy Nuclei in Dielectric Track Detectors. *G. P. Gertsen, S. A. Dashin, A. M. Marenyi, N. V. Sal'nikov, and I. M. Shalfeev.* **1986, No. 3, 580 [67].**

Multiwire Dielectric Detector for Measuring the Coordinates of Charged Particles. *S. G. Gasparyan, S. M. Gukasyan, R. L. Kavalov, G. A. Papyan, L. K. Parlakyan, and G. G. Chubaryan.* **1987, No. 6, 1313 [37].**

New Track Detector: Nuclear Emulsion with Variable Sensitivity. *E. M. Gushchin, A. N. Lebedev, A. Yu. Lopyrev, S. V. Somov, and G. I. Tipografshchik.* **1988, No. 1, 25 [28].**

Production of Single Heavy-Ion Tracks in Polymers. *P. Yu. Apel', A. Yu. Didyk, and V. I. Kuznetsov.* **1988, No. 6, 1418 [48].**

Registration Properties of Polymer Detectors Based on Diethylene Glycol Bisallyl Carbonate. *V. G. Bogdanov, N. P. Kocherov, and O. E. Shigaev.* **1989, No. 3, 569 [69].**

Track Visualization by Etching of Dielectric Track Detectors in an Ultrasonic Field. *S. V. Elkin, V. V. Kushin, V. K. Lyapidevskii, and N. B. Khokhlov.* **1989, No. 5, 1047 [70].**

Processes of Charged-Particle-Track Annealing in Polymer Detectors. *V. V. Kushin, V. K. Lyapidevskii, V. P. Perelygin, S. G. Stetsenko, and N. B. Khokhlov.* **1990, No. 2, 320 [82].**

3.1.4. Processing of photographic data

Development of a Filmless Television Method for Measuring the Coordinates of Fast Processes (Review). *A. V. Petrakov.* **1980, No. 6, 1321 [5].**

Accelerated Scanning for Families of Gamma Rays in X-Ray Pellicle Stack. *Zh. S. Takibaev, A. S. Baigubekov, and T. Kh. Sadykov.* **1977, No. 3, 686 [70].**

Feed Mechanism of System for Treatment of Recording from Large Bubble Chambers. *L. S. Shiyanov.* **1977, No. 4, 983 [55].**

Method of Optical Wedges for Spatial Reconstruction of Particle Trajectories. *T. L. Asatiani, S. V. Alchudzhyan, K. A. Gazaryan, D. Sh. Zograbyan, L. I. Kozliner, V. M. Krishchyan, G. S. Martirosyan, and S. V. Ter-Antonyan.* **1978, No. 3, 600 [47].**

Automatic Measurements of Reference Crosses on Photographs from Bubble Chambers in a Spiral-Meter System. *I. V. Gorshenina, N. E. Detinenko, A. A. Ivanov, and Yu. S. Nechaev.* **1978, No. 3, 642 [87].**

Automatic Spark Counter for Tracks. *V. A. Nikolaev, B. M. Aleksandrov, V. S. Vedeneev, and A. S. Krivokhatskii.* **1978, No. 4, 893 [57].**

Use of the Hough-Powell Digitizer to Measure Film from the Bubble Chamber "Mirabelle" in K^+p Experiment at 32 GeV/c. *A. A. Borovikov, V. V. Bryzgalov, S. A. Gumenyuk, A. M. Rybin, and G. N. Khromova.* **1979, No. 2, 356 [63].**

Possible TV Recording of Particle Tracks in Streamer Chamber. *V. V. Volkov, V. V. Grechnev, V. V. Kantserov, and S. V. Somov.* **1979, No. 3, 674 [57].**

Spatial Errors and Resolution of Nearby Tracks during Parallel Tracking in Terms of Images on Photographic Frames. *K. É. Érglis.* **1980, No. 2, 343 [52].**

Simulation of Spatial Tracking in a Large Bubble Chamber. *K. É. Érglis.* **1980, No. 2, 347 [56].**

System for the Semiautomatic Search for Particles Having a Particular Direction in Nuclear Emulsions. *N. L. Grigorov, N. N. Dmitrieva, and V. A. Dmitriev.* **1981, No. 1, 33 [36].**

Separating Short-Range Protons and α Particles in a Relativistic Nuclear Emulsion. *A. O. Vaisenberg, E. A. Pozharova, and V. A. Smirnitskii.* **1981, No. 2, 345 [56].**

Analysis of Photographs from Large Bubble Chambers Using the HPD Automatic Opticomechanical System. *A. A. Borovikov, V. V. Bryzgalov, M. M. Gubaeva, S. A. Gumenyuk, and G. N. Khromova.* **1984, No. 1, 51 [55].**

System for Processing Bubble-Chamber Photographs with an HPD Automatic Unit. *A. A. Borovikov, S. A. Gumenyuk, S. G. Nikitin, and V. V. Sikolenko.* **1984, No. 4, 854 [66].**

Apparatus for Recording Track Information from Photographs Obtained with a Holographic Bubble Chamber. *P. F. Ermolov, V. V. Kozlov, V. E. Ogluzdin, and A. V. Shkurenkov.* **1984, No. 5, 1099 [49].**

Organization of Inspection of Bubble-Chamber Photographs. *I. A. Gritsaenko, L. P. Petrovykh, Yu. L. Petrovykh, and A. B. Fenyuk.* **1985, No. 5, 1043 [53].**

Automated System for Processing of Photographs from Large Bubble Chambers. *V. A. Goncharov, A. F. Dunaitsev, P. F. Ermolov, V. D. Zhil'chenkov, Yu. L. Kurkin, A. P. Leonov, V. D. Longinov, O. I. Mikhailov, G. D. Nekipelova, V. A. Petukhov, A. V. Popov, V. I. Rybachenko, N. P. Savin, E. A. Ustinov, P. V. Shlyapnikov, V. D. Yuralov, and V. A. Yarba.* **1986, No. 2, 316 [52].**

Unified Control Hardware for Automated System for Processing of Photographs from Large Bubble Chambers. *V. A. Goncharov, A. F. Dunaitsev, P. P. Ermolov, Yu. L. Kurkin, A. P. Leonov, V. D. Longinov, G. D. Nekipelova, A. V. Popov, E. A. Ustinov, P. V. Shlyapnikov, V. D. Yurpalov, and V. A. Yarba.* **1986, No. 2, 321 [56].**

"Micron" System for Automation and Analysis of Measurements in a Nuclear Photoemulsion. *M. I. Daion, K. A. Kotel'nikov, A. G. Martynov, V. M. Rappoport, V. A. Smirnitskii, and M. A. Ozerskii.* **1987, No. 6, 1325 [46].**

Data-Processing System for Bubble-Chamber Photographs based on PUOS-4 Measuring Projectors and an ES-1045 Computer. *P. F. Ermolov, V. V. Kozlov, V. P. Rukovichkin, S. V. Rakhmanov, A. K. Khomyakov, A. V. Shkurenkov, V. A. Goncharov, Yu. L. Kurkin, V. D. Longinov, and V. D. Yurpalov.* **1988, No. 2, 336 [68].**

Use of Ultraviolet Light for Automatic Track Counting. *L. V. Basova, V. A. Gromov, N. P. Ivanov, T. P. Klimova, S. N. Kraitor, T. D. Kuz'mina, and O. V. Cherkashina.* **1988, No. 3, 576 [53].**

Television Analyzer for Track-Detector Photographs. *I. P. Shevyakov.* **1989, No. 1, 82 [74].**

Method of Nuclear-Track Recognition for Automated Processing of Radiographic Images. *V. D. Rusov and V. I. Sviridov.* **1989, No. 4, 800 [63].**

Method for Estimation of Track Diameters in System for Automatic Processing of Radiographic Images. *V. D. Rusov and V. I. Sviridov.* **1991, No. 3, 550 [71].**

3.2. Ionization detectors

Thin-Film Breakdown Counters (Review). *A. N. Smirnov and V. P. Éismont.* **1983, No. 6, 1249 [5].**

Emission Track Detectors (Survey). *A. I. Bolozdynya.* **1985, No. 2, 265 [5].**

Purification and Purity Control of Working Media for Liquid Ionization Detectors (Review). *A. S. Barabash.* **1988, No. 3, 517 [7].**

Multiwire Gas Counter for Coordinated Measurements in the Vacuum Ultraviolet Region. *G. D. Bogomolov, Yu. V. Dubrovskii, and V. D. Peskov.* **1978, No. 3, 779 [209].**

Coordinate Gas Counters for the Investigation of Spectra in the Vacuum-Ultraviolet Region. *G. D. Bogomolov, Yu. V. Dubrovskii, and V. D. Peskov.* **1978, No. 4, 1073 [210].**

Geiger Coordinate Counters. *Yu. V. Dubrovskii and V. D. Neskov.* **1979, No. 3, 683 [65].**

New Data on Dielectric-Breakdown Heavy-Ion Counters Based on MOS Structure. *A. N. Smirnov.* **1979, No. 3, 706 [86].**

UV and X-Ray Geiger Counters with a Spatial Resolution of 0.3 mm. *V. D. Peskov.* **1979, No. 5, 1395 [189].**

Ultrasonic Cleaning of Wire-Chamber Electrodes. *V. A. Krasnov, A. B. Kurepin, K. O. Oganesyan, S. Yu. Porokhovoi, V. I. Razin, and Sh. G. Shamsutdinov.* **1980, No. 1, 63 [67].**

Coordinate Gas Scintillation X-Ray and UV Photon Counters. *V. D. Peskov.* **1980, No. 2, 507 [196].**

Load Dependence of Dead Time of Halide Geiger Counters. *A. M. Onishchenko and A. A. Tsvetkov.* **1980, No. 4, 857 [48].**

Coordinate Gas Detector of Ultraviolet and X-Ray Photons with an hf Field. *V. D. Peskov.* **1980, No. 4, 1021 [203].**

Spark Counters for Vacuum Ultraviolet and X-Ray Photons. *V. D. Peskov.* **1980, No. 4, 1025 [206].**

Instrument for Measuring the Tension of the Filament in Multiwire Chambers. *F. E. Zyazyulya, S. M. Korenchenko, and K. G. Nekrasov.* **1980, No. 5, 1101 [45].**

Measurement of the γ-Counting Efficiency of STS-6 Counters. *V. D. Dyatlov.* **1981, No. 4, 877 [49].**

Instrument for Measuring Concentration of Electronegative Impurities in Liquid Argon. *B. A. Bobrov, E. A. Kushnirenko, and V. S. Panin.* **1981, No. 6, 1377 [43].**

Measurements of Primary Ionization by Cluster Counting. *Yu. A. Budagov, V. Glinka, A. A. Semenov, S. V. Sergeev, B. Sitar, A. A. Feshchenko, and I. Spalek.* **1984, No. 1, 59 [62].**

Discharge Quencher for Geiger Counters. *R. K. Mushev.* **1985, No. 5, 1054 [61].**

Scintillation-Ionization Chamber for Study of Ternary Fission. *V. E. Makarenko, Yu. D. Molchanov, G. A. Otroshchenko, and G. B. Yan'kov.* **1988, No. 5, 1153 [59].**

Use of Emission Detector to Check Electronegative-Impurity Content of Liquid Krypton. *S. N. Anisimov, A. S. Barabash, A. I. Bolozdynya, and V. N. Stekhanov.* **1989, No. 1, 89 [79].**

Use of Ni/SiO_2 as Adsorbent for Long-Term Diffusion Purification of Gaseous Xenon and Xenon-Methane Mixtures. *Yu. V. Zanevskii, V. D. Peshekhonov, and L. P. Smykov.* **1989, No. 4, 823 [81].**

"Moidodyr" Apparatus for Electric-Spark Purification of Liquid Krypton Used in Ionization Detectors. *S. N. Anisimov, A. S. Barabash, A. I. Bolozdynya, V. N. Stekhanov, and D. L. Churakov.* **1991, No. 2, 313 [79].**

3.2.1. Ionization chambers

Position-Sensitive Ionization Fission Chamber. *V. S. Gal'tsov, I. I. Zakharkin, V. A. Kuznetsov, and O. I. Shchetinin.* **1978, No. 1, 30 [31].**

Liquid-Argon, Cylindrical, Pulsed, Ionization Chamber. *A. S. Barabash, A. A. Golubev, O. V. Kazachenko, and B. M. Ovchinnikov.* **1979, No. 4, 958 [75].**

Liquid-Methane Pulsed Ionization Chamber. *A. S. Barabash, A. A. Golubev, O. V. Kazachenko, and B. M. Ovchinnikov.* **1980, No. 2, 366 [73].**

A Cylindrical Ionization Chamber for Low-Energy (0.1-3-MeV) γ-Ray Spectrometry. *V. V. Dmitrenko, V. N. Lebedenko, A. S. Romanyk, and Z. M. Uteshev.* **1981, No. 5, 1146 [49].**

Spectrometric Applications of an Ionization-Type Drift Chamber. *V. V. Dmitrenko, A. S. Romanyuk, Z. M. Uteshev, and V. K. Chernyatin.* **1982, No. 1, 50 [51].**

A Nitrogen-Filled Ionization Chamber. *K. M. Avakyan, G. V. Azizbekyan, and P. S. Mnatsakanyan.* **1982, No. 4, 846 [60].**

Position-Sensitive Ionization Chamber for a Flight-Time Spectrometer. *V. Seidel, H. Sodan, S. M. Luk'yanov, P. Manfras, Yu. É. Penionzhkevich, F. Stari, and K. D. Shilling.* **1983, No. 4, 794 [52].**

Compressed-Xenon Ionization Chamber for Gamma Spectrometry. *V. V. Dmitrenko, A. S. Romanyuk, S. I. Suchkov, and Z. M. Uteshev.* **1986, No. 1, 14 [20].**

Measurement of Electron Drift Mobility and Lifetime in Specimens of Domestic Tetramethylsilane. *A. I. Babaev, A. A. Balakin, L. G. Gorbatko, Yu. P. Endovin, A. V. Epifantsev, N. I. Mazurina, L. I. Novikova, G. Kh. Salakhutdinov, E. S. Starodubtsev, P. B. Shatalov, and B. S. Yakovlev.* **1987, No. 4, 831 [71].**

Response Function of Absolute Ionization Chamber in Energy Range of 4-30 MeV. *Z. M. Bigan, A. I. Lendel, V. M. Mazur, and I. V. Sokolyuk.* **1988, No. 2, 316 [52].**

Identification and Spectrometry of Low-Energy Charged Particles by Means of Ionization Chamber with Two Grids. *Yu. M. Gledenov, N. I. Kvitkova, M. P. Mitrikov, R. S. Mitrikova, V. G. Tishin, and Fung Van Zuan.* **1988, No. 3, 579 [55].**

High-Pressure Ionization Chamber for ^{136}Xe Double Beta Decay. *A. S. Barabash, V. M. Novikov, and B. M. Ovchinnikov.* **1989, No. 6, 1308 [68].**

Heterogeneous Ionization Chambers for Dosimetry of Composite Fields of Fast Neutrons and Gamma Radiation. *V. A. Lisin and A. I. Gorbatenko.* **1989, No. 6, 1311 [71].**

Time Resolution of Flat Liquid-Xenon or Liquid-Krypton Ionization Chamber. *P. K. Lebedev and S. V. Murav'ev.* **1990, No. 1, 63 [76].**

Use of Tetramethylsilane in Multielectrode Ionization Chamber. *A. I. Babaev, A. V. Epifantsev, and P. B. Shatalov.* **1990, No. 1, 72 [83].**

Effect of Ionization-Yield Nonlinearity on Energy Resolution of Condensed-Noble-Gas Spectrometers. *I. M. Obodovskii, S. G. Pokachalov, E. B. Kostyreva, M. A. Kirsanov, and A. A. Kruglov.* **1991, No. 1, 48 [60].**

Spectrometric Properties of Cylindrical Liquid-Xenon Ionization Chambers. *M. A. Kirsanov, A. A. Kruglov, I. M. Obodovskii, S. G. Pokachalov, V. A. Shilov, T. Ya. Voronova, and I. G. Razinova.* **1991, No. 1, 66 [75].**

3.2.2. Proportional chambers

Proportional and Drift Chambers in Applied Research (Review). *Yu. V. Zanevskii and V. D. Peshekhonov.* **1978, No. 2, 272 [7].**

Proportional Wire Chambers in High-Intensity Particle Beams. *A. N. Inyakin, V. A. Kachanov, P. P. Kostromin, D. I. Patalakha, and Yu. D. Prokoshkin.* **1977, No. 1, 27 [29].**

Proportional Chamber with Analog Data Plotting. *V. E. Popov and A. N. Prokof'ev.* **1977, No. 4, 994 [66].**

Study of Optical Gas-Discharge Chambers in the Mode of Pulsed Proportional Amplification. *A. G. Lavkin, E. A. Monich, V. I. Rykalin, and V. K. Semenov.* **1977, No. 5, 1304 [68].**

Installation Based on a Proportional Chamber for Radiographic Investigation of Objects. *Yu. V. Zanevskii, A. B. Ivanov, V. D. Peshekhonov, I. A. Tyapkin, and S. P. Chernenko.* **1978, No. 3, 615 [60].**

Accuracy of the Spatial Arrangement and Tension of Wire Electrodes in Proportional Chambers. *G. D. Alekseev, N. A. Kalinina, V. V. Kruglov, and D. M. Khazins.* **1978, No. 4, 881 [47].**

Proportional Chamber with Signal-Wire Spacing of 10 mm. *G. D. Alekseev, N. A. Kalinina, V. V. Kruglov, and D. M. Khazins.* **1978, No. 4, 886 [51].**

Spectrometric Characteristics of Optical Gas-Discharge Chambers in the Pulsed Proportional Amplification Regime. *V. G. Vasil'chenko, N. K. Vishnevskii, A. G. Lavkin, V. G. Lapshin, V. T. Purgin, V. I. Rykalin, and V. K. Semenov.* **1978, No. 4, 896 [60].**

Quasi-Isotropic Proportional Chamber. *E. S. Belyakov, E. I. Kurgin, V. N. Prokhorov, and K. K. Prokhorova.* **1978, No. 6, 1483 [27].**

Multiwire Proportional Chamber with Anode Wire Winding Pitch 1 mm. *V. M. Golovatyuk, Yu. V. Zanevskii, and V. D. Peshekhonov.* **1978, No. 6, 1486 [30].**

3 × 1.5-m Proportional Chamber and Its Characteristics. *A. V. Vishnevskii, I. A. Golutvin, A. V. Zarubin, Yu. L. Zlobin, Yu. T. Kiryushin, N. A. Kuz'min, L. V. Svetov, D. A. Smolin, Yu. A. Yatsunenko.* **1979, No. 3, 677 [60].**

Characteristics of 3 × 1.5-m Proportional Chamber under Large Loads. *A. V. Vishnevskii, I. A. Golutvin, A. V. Zarubin, Yu. T. Kiryushin, N. A. Kuz'min, D. A. Smolin, and Yu. A. Yatsunenko.* **1979, No. 3, 681 [63].**

Effect of Radiation Load on Operation of Proportional Chamber. *G. D. Alekseev, N. A. Kalinina, V. V. Karpukhin, V. V. Kruglov, and D. M. Khazins.* **1980, No. 4, 854 [45].**

System Consisting of Two-Coordinate Cylindrical Proportional Chambers with a Resistive Cathode. *V. B. Golubev, A. N. Peryshkin, I. Yu. Red'ko, and S. I. Serednyakov.* **1981, No. 6, 1373 [40].**

Electric Fields and Wire Stability in a Cylindrical Proportional Chamber. *B. I. Khazin.* **1982, No. 1, 66 [64].**

Influence of the Anode-Wire Thickness and the Working-Gas Pressure on the Characteristics of the Self-Quenching Operating Mode of a Wire Chamber. *G. D. Alekseev and D. M. Khazins.* **1982, No. 2, 311 [33].**

System of Proportional Chambers of BIS-2 Spectrometer. *G. Aikhner, A. N. Aleev, V. A. Aref'ev, V. P. Balandin, S. G. Basiladze, V. K. Birulev, I. Veres, T. S. Grigalashvili, B. N. Gus'kov, I. M. Ivanchenko, I. N. Kakurin, N. N. Karpenko, D. A. Kirillov, I. G. Kosarev, N. A. Kuz'min, B. A. Kulakov, M. F. Likhachev, L. Lokhonyai, A. N. Maksimov, P. K. Man'yakov, A. Montivai, A. N. Morozov, Ya. Pazoni, A. N. Parfenov, and L. Sabo.* **1982, No. 3, 551 [40].**

Design and Stand Tests of Proportional Chambers of BIS-2 Spectrometer. *G. Aikhner, A. N. Aleev, V. A. Aref'ev, V. P. Balandin, V. K. Birulev, L. Vaii, I. Veres, T. S. Grigalashvili, B. N. Gus'kov, Z. Kaiczos, D. A. Kirillov, I. G. Kosarev, N. A. Kuz'min, B. A. Kulakov, M. F. Likhachev, L. Lokhonyai, A. N. Maksimov, A. Montivai, A. N. Morozov, Ya. Pazoni, and L. Sabo.* **1982, No. 3, 557 [45].**

Multiwire Low-Pressure Proportional Chamber with a High Gas-Amplification Coefficient. *D. A. Abdushukurov, Yu. V. Zanevskii, S. A. Movchan, T. Netushil, V. D. Peshekhonov, and L. P. Smykov.* **1983, No. 6, 1287 [37].**

Proportional Chambers with High-Voltage Electrodes Made of Aluminum Foil. *A. V. Vishnevskii, I. A. Golutvin, Yu. L. Zlobin, Yu. T. Kiryushin, and L. V. Svetov.* **1984, No. 1, 56 [60].**

Measurement of the Gas-Amplification Coefficient of Proportional Chambers and Selection of an Analytic Formula Describing the Coefficient. *N. A. Kalinina and D. M. Khazins.* **1984, No. 3, 557 [43].**

Investigation of the Characteristics of Multiwire Proportional Chambers with Information Pickup from the Cathode. *L. S. Barabsh, A. M. Baranov, G. B. Bondarenko, B. A. Dolgoshein, V. P. Konovalov, A. M. Konstantinov, V. K. Semenov, and A. A. Stifutkin.* **1984, No. 5, 1095 [47].**

Muon Chambers of ARGUS Detector. *A. V. Aref'ev, M. V. Danilov, Yu. V. Gorodkov, Yu. M. Zaitsev, V. A. Lyubimov, Yu. A. Semenov, I. N. Tikhomirov, and V. I. Chistilin.* **1986, No. 2, 333 [66].**

Measurement of Coordinates of Cerenkov Photons in Wire Chamber Operating in High-Current Mode. *A. F. Buzulutskov, V. G. Vasil'chenko, and L. K. Turchanovich.* **1986, No. 4, 808 [48].**

Fiber-Optic Data Acquisition from High-Current Wire Chamber. *A. F. Buzulutskov, V. G. Vasil'chenko, and L. K. Turchanovich.* **1987, No. 1, 48 [47].**

Proportional Chamber with 1 mm Spacing of the Signal Wires. *V. P. Balandin, I. Veresh, B. N. Gus'kov, V. M. Grebenyuk, P. Zalan, N. O. Kadagidze, V. R. Krastev, N. A. Kuz'min, A. N. Maksimov, P. K. Man'yakov, G. V. Melitauri, Ya. Pazoni, T. G. Pitskhelauri, E. A. Chudakov, and V. K. Yudin.* **1987, No. 6, 1307 [32].**

High-Speed Proportional Chamber with Mixture of Freon-14 and Isobutane. *P. P. Kostromin, R. N. Krasnokutskii, L. L. Kurchaninov, A. G. Metelev, O. V. Skripachev, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1988, No. 6, 1407 [40].**

General-Purpose Gas Panel for System of Proportional Chambers. *S. V. Erin, A. A. Morozov, V. K. Myalitsin, and B. V. Chuiko.* **1988, No. 6, 1412 [43].**

Large Wire Proportional Chambers. *N. S. Amaglobeli, Yu. Sh. Bagaturiya, R. V. Burov, L. N. Glonti, R. M. Sakandelidze, T. M. Sakhelashvili, and B. G. Chiladze.* **1989, No. 3, 560 [61].**

Low-Pressure Multiwire Proportional Chambers for Registration of Fission Fragments. *A. V. Belozerov, Yu. A. Korzhuk, Yu. F. Pevchev, and S. I. Sitnikov.* **1989, No. 3, 564 [65].**

Study of Low-Pressure Chamber for Registration of Fission Fragments of Heavy Nuclei. *E. A. Arakelyan, G. L. Bayatyan, N. K. Grigoryan, S. G. Knyazyan, A. T. Margaryan, and G. G. Marikyan.* **1989, No. 3, 567 [68].**

Design and Characteristics of Proportional Chambers of GAMS Spectrometer. *S. V. Erin, A. A. Morozov, V. K. Myalitsin, and B. V. Chuiko.* **1989, No. 6, 1304 [64].**

Low-Pressure Proportional Chambers for Measurement of Fission-Fragment Angle and Energy Distributions. *V. A. Zapevalov, D. I. Ivanov, G. Ya. Kezerashvili, V. V. Muratov, V. G. Nedorezov, and A. S. Sudov.* **1990, No. 1, 68 [80].**

Cluster Processing in a Proportional Chamber. *I. V. Kotov.* **1990, No. 3, 562 [80].**

Proportional Chambers with Small Amounts of Material in Working Space. *M. A. Ivanov, V. V. Karpukhin, V. I. Komarov, and V. M. Kudryavtsev.* **1990, No. 4, 786 [69].**

Proportional Chamber with Electromagnetic Delay Line for Registration of Relativistic Charged Particles. *A. N. Veretennikov, M. V. Guzenko, A. A. Moiseev, A. K. Kadishnov, Yu. N. Koblik, V. A. Pirogov, and M. N. Soboleva.* **1990, No. 6, 1283 [58].**

3.2.3. Proportional counters

Proportional Counter for Scattered γ-Radiation Measurement in Mössbauer Spectroscopy. *N. A. Tomashevskii, O. N. Razumov, and Yu. V. Galushko.* **1977, No. 2, 389 [54].**

Operating Life of X-Ray Proportional Counters. *A. A. Vaigachev, E. F. Klukvina, S. Yu. Puzyrev, L. S. Sorokin, V. G. Chaikovskii, and K. I. Shchekin.* **1977, No. 4, 1014 [84].**

Sectional Flow Proportional Counter for Mössbauer Spectroscopy. *L. A. Korytko, F. G. Kulidzhanov, N. S. Medvedeva, V. N. Somov, and A. N. Tolstikov.* **1977, No. 5, 1306 [70].**

Large-Volume Proportional Gas Counter for Measuring Low Concentrations of Tritium. *Yu. F. Baryshev, V. F. Volkov, V. I. Smirnov, G. M. Ter-Akop'yan, M. S. Khozyainov, and L. P. Chelnokov.* **1978, No. 1, 40 [41].**

Operation of Proportional Counters at Pressures up to 100 atm. *V. G. Grebinnik, V. Kh. Dodokhov, V. A. Zhukov, A. B. Lazarev, A. A. Nozdrin, A. F. Pisarev, V. A. Stolupin, and V. I. Travkin.* **1978, No. 5, 1220 [62].**

High-Pressure Proportional Counter at Low Temperatures. *V. G. Grebennik, V. Kh. Dodokhov, V. A. Zhukov, A. B. Lazarev, A. A. Nozdrin, V. A. Stolupin, and V. I. Travkin.* **1978, No. 5, 1225 [66].**

Time-Dependent Properties of Proportional Counters SRPO-304. *A. A. Gusev and G. I. Pugacheva.* **1979, No. 1, 67 [66].**

Tests of the Operating Life of Miniature Proportional Counters. *G. S. Malkiél', V. V. Ratnikov, and A. F. Titenkov.* **1980, No. 3, 604 [61].**

Proportional Resonance Detector for Mössbauer Studies on ^{119}Sn. *A. K. Avenirov, S. I. Bondarevskii, V. V. Eremin, S. M. Irkaev, and M. M. Sokolov.* **1980, No. 4, 870 [60].**

Spectra of Recoil Protons in Methane-Filled Proportional Counters. *A. N. Davletshin, A. O. Tipunkov, S. V. Tikhonov, and V. A. Tolstikov.* **1980, No. 5, 1114 [56].**

Gas Amplification Coefficient of Proportional Counters. *P. V, Vakulov, G. S. Malkiél, V. V. Ratnikov, and A. F. Titenkov.* **1983, No. 2, 275 [33].**

Automated System of Recording Rare Pulses of a Proportional Counter. *I. R. Barsbanov, V. N. Gavrin, and Yu. I. Zakharov.* **1983, No. 3, 554 [56].**

Measurement of the Electron Drift Time in the Electric Field of a Cylindrical Proportional Counter. *I. R. Barabanov, V. N. Gavrin, Yu. I. Zakharov, and E. L. Zyabina.* **1983, No. 4, 820 [73].**

Proportional Electron Detector for Nuclear Gamma-Resonance Spectroscopy. *V. V. Nemoshkalenko, Yu. V. Galushko, O. N. Razumov, and N. A. Tomashevskii.* **1983, No. 5, 1036 [39].**

Systems of Proportional Tubes. *D. S. Denisov and Yu. V. Musienko.* **1986, No. 3, 586 [73].**

Proportional-Counter Module for ANI Experimental Complex. *G. Ts. Avakyan, K. M. Avakyan, and K. G. Saakyan.* **1986, No. 5, 1023 [38].**

Method for Preparing a Cathode for a Low-Background Gas-Discharge Counter. *V. V. Glazov, V. M. Glazov, and I. A. Feshchenko.* **1987, No. 3, 723 [198].**

Background Elimination of Event Selection according to Proportional-Counter Pulse Shape. *V. P. Lazutkov and E. M. Lotvinov.* **1988, No. 3, 583 [59].**

Miniature Multiwire Proportional Counter for ^{71}Ge and ^{37}Ar Registration. *I. R. Barabanov, V. N. Gavrin, L. P. Prokop'eva, and M. I. Samsonova.* **1988, No. 4, 845 [25].**

Contribution of Electron Component to Amplitude of Proportional-Counter Pulse. *V. V. Ratnikov.* **1988, No. 4, 853 [31].**

Proportional Counter for Mössbauer Studies of Surface Layers at Temperatures from 100 to 700 K. *A. S. Kamzin and V. P. Rusakov.* **1988, No. 5, 1150 [56].**

Neutron Proportional Counter with Reduced Natural-Background Level. *G. S. Vidyakin, V. N. Vyrodov, Yu. K. Kozlov, V. P. Martem'yanov, S. V. Sukhotin, V. G. Tarasenkov, S. Kh. Khakimov, and A. S. Khrustal'.* **1989, No. 4, 809 [70].**

Two-Chamber Proportional Counter for Mössbauer Spectroscopy of Conversion Electrons and X-Rays in Temperature Range of 100-700 K. *A. S. Kamzin and L. A. Grigor'ev.* **1990, No. 2, 314 [77].**

Miniature Proportional Counter with Quartz-Glass Housing. *V. V. Kuz'minov, N. A. Likhovid, and V. M. Novikov.* **1990, No. 4, 806 [86].**

Universal Proportional Counter for Comprehensive Mössbauer Studies of Crystal Surface Layers and Interiors. *A. S. Kamzin and L. A. Grigor'ev.* **1991, No. 2, 307 [74].**

Proportional-Tube System. *E. N. Gushchin, L. L. Kurchaninov, Yu. V. Musienko, V. V. Sushkov, and R. S. Shuvalov.* **1991, No. 4, 785 [48].**

3.2.4. Drift and time-projection detectors

Proportional and Drift Chambers in Applied Research (Review). *Yu. V. Zanevskii and V. D. Peshekhonov.* **1978, No. 2, 272 [7].**

Characteristics of 1.5 × 1 m Drift Chamber. *V. M. Golovatyuk, Yu. V. Zanevskii, B. K. Kuryatnikov, and V. D. Peshekhonov.* **1977, No. 1, 38 [38].**

Drift Chamber with Multiwire Signal Element and with Large Drift Gap. *N. I. Bozhko, A. A. Borisov, A. S. Vovenko, V. Yu. Glebov, A. I. Mukhin, V. G. Rybakov, A. N. Sytin, and R. M. Fakhrutdinov.* **1978, No. 4, 874 [42].**

Loading Characteristics of a Drift Chamber with a Multiwire Signal Element and a 250-mm Drift Gap. *N. I. Bozhko, A. A. Borisov, V. Yu. Glebov, and R. M. Fakhrutdinov.* **1978, No. 4, 878 [45].**

Two-Coordinate 1.6 × 0.8 mm Drift Chamber. *G. D. Alekseev, V. I. Ganichev, V. V. Karpukhin, V. V. Kruglov, V. P. Pugachevich, and D. M. Khazins.* **1978, No. 5, 1206 [50].**

Use of Xenon in the Gas Mixture for Proportional Drift Chambers. *V. K. Gorbunov, V. A. Krasnov, A. B. Kurepin, K. O. Oganesyan, V. I. Razin, and A. I. Reshetin.* **1981, No. 1, 42 [44].**

Fabrication of Drift Chamber Modules for the "Pion" Setup. *V. K. Gerbunov, V. A. Krasnov, A. B. Kurepin, K. O. Oganesyan, S. Yu. Porokhovoi, V. P. Pugachevich, V. I. Razin, A. I. Reshetin, D. V. Ural'skii, A. A. Feshchenko, and M. D. Shafranov.* **1981, No. 3, 589 [32].**

A Drift Chamber for the Identification of Slow Particles. *Yu. Zlomanchuk, A. Navrot, V. A. Nikitin, V. D. Peshekhonov, and M. Shavlovskii.* **1982, No. 5, 1095 [53].**

Determination of the Three-Dimensional Resolution of Drift Chambers in π–e and K–e Scattering Experiments at a Particle Momentum of 250 GeV/c. *A. S. Vodop'yanov, T. S. Nigmanov, V. D. Ryabtsov, and E. N. Tsyganov.* **1984, No. 3, 550 [37].**

Study of the Characteristics of a Drift Chamber in a Beam of Slow Nuclear Fragments. *A. A. Budilov, Yu. V. Zanevskii, J. Zlomanczuk, V. D. Maisyukov, A. Nawrot, V. A. Nikitin, P. V. Nomokonov, V. D. Peshekhonov, and L. A. Urmanova.* **1985, No. 2, 314 [48].**

Drift Chambers in a Self-Quenching Streamer Regime. *G. G. Alekseev, V. I. Ganichev, O. E. Gorchakov, N. A. Kalinina, V. V. Karpukhin, V. V. Kruglov, A. V. Kuptsov, L. Luchan, V. P. Pugachevich, D. M. Khazins, A. S. Chvyrov, and M. N. Shumakov.* **1985, No. 2, 319 [52].**

Position-Sensitive Xenon Gamma-Quantum Detector. *N. G. Goleminov, B. V. Rodionov, and V. Yu. Chepel'.* **1986, No. 2, 325 [61].**

Use of Drift Chamber to Measure X-Ray Attenuation Factors in Gaseous Xenon. *V. K. Lyapidevskii and V. S. Chuchuryukin.* **1986, No. 3, 547 [38].**

Characteristics of Rectangular Drift Tube for Muon Identifier. *D. S. Denisov and Yu. V. Musienko.* **1986, No. 4, 794 [35].**

Use of Pulse Trailing Edge to Improve Time Resolution of Proportional Drift Tube. *R. N. Krasnokutskii, S. A. Medved', Yu. V. Mikhailov, Yu. M. Pishchal'nikov, and R. S. Shuvalov.* **1986, No. 5, 1019 [34].**

Cylindrical Multiwire Two-Coordinate Chamber with Support Element of Polyurethane Foam. *V. G. Vakhtin and V. I. Travkin.* **1988, No. 1, 29 [31].**

Distributed-Potential Drift Chambers with Sensitive Area of 1 × 2 m. *S. V. Erin, A. S. Konstantinov, V. K. Myalitsin, and B. V. Chuiko.* **1988, No. 1, 38 [37].**

Use of Drift Chamber for Measurement of Coefficient of Longitudinal Diffusion of Electrons in Xenon. *V. K. Lyapidevskii and V. S. Chuchuryukin.* **1988, No. 1, 42 [42].**

Simple Method for Measurement of Wire Tension in Multiwire Proportional and Drift Chambers. *V. K. Myalitsin, E. V. Smirnov, and B. V. Chuiko.* **1988, No. 2, 307 [44].**

Drift-Tube System of Sigma-M Spectrometer. *D. S. Denisov, O. V. Eroshin, V. A. Medovikov, and Yu. V. Musienko.* **1988, No. 2, 311 [48].**

Vertex Detector of Four Cylindrical Wire Chambers. *V. I. Travkin.* **1988, No. 5, 1147 [54].**

Use of Coincidence Circuit for Drift-Detector Signals for Particle Sampling by Momentum. *V. I. Kryshkin and A. I. Ronzhin.* **1989, No. 1, 68 [64].**

Dielectric Parameters of and Electric-Field Formation in Electrodeless Drift Chambers. *A. M. Artykov, V. V. Glagolev, V. Glinka, E. Kladiva, and B. Sitar.* **1989, No. 1, 72 [66].**

Use of Drift Chamber for Study of Short-Duration Pulse Processes. *V. K. Lyapidevskii, V. S. Chuchuryukin, and A. K. Shtoff.* **1989, No. 2, 339 [77].**

Track Experiment for Study of Double Beta Decay of ^{136}Xe. *M. S. Ainutdinov, V. A. Artem'ev, E. V. Brakhman, O. Ya. Zel'dovich, M. A. Ivanovskii, A. K. Karelin, V. V. Kirichenko, V. M. Knyazev, O. M. Kozodaeva, V. A. Lyubimov, A. I. Mitin, V. P. Nikolaev, A. A. Rostovtsev, and T. N. Tsvetkova.* **1989, No. 6, 1299 [60].**

Use of Krypton-Methane Mixtures in Drift Chambers. *V. V. Sosnovtsev and V. N. Yurov.* **1990, No. 2, 324 [85].**

High-Speed Drift Chamber with Gas Mixture of 80% CF_4 + 20% i-C_4H_{10}. *L. L. Kurchaninov, V. K. Myalitsin, V. V. Sushkov, and R. S. Shuvalov.* **1990, No. 4, 783 [67].**

Operation of Minidrift Chambers with Various Gas Mixtures. *A. A. Derevshchikov, S. V. Erin, A. A. Morozov, V. K. Myalitsin, and V. I. Shelikhov.* **1990, No. 5, 1040 [67].**

Possibility of Creation of Calorimetric Detector based on $KMgF_3$ Scintillator and Plane-Parallel Avalanche Chamber. *A. F. Buzulutskov, V. G. Vasil'chenko, and L. K. Turchanovich.* **1990, No. 5, 1049 [74].**

Aluminum Drift-Tube Modules of 3.5 × 0.5 m for Charged-Particle Coordinate Detectors. *Yu. M. Antipov, V. A. Bezzubov, and D. S. Denisov.* **1991, No. 2, 302 [70].**

3.2.5. Multistage avalanche detectors, wire detectors

High-Speed Transmission Avalanche Counter for Recording Charged Particles. *W. Neubert and F. Dubbers.* **1979, No. 4, 973 [88].**

Low-Pressure Multistage Cascade Chamber. *Yu. V. Zanevskii, V. D. Peshekhonov, and L. P. Smykov.* **1985, No. 6, 1292 [54].**

High-Current Mode in Wire Photodetector with Anode Wire 28 μm in Diameter. *A. F. Buzulutskov, V. G. Vasil'chenko, and L. K. Turchanovich.* **1987, No. 4, 823 [64].**

Controlled Wire Photodetector for High Loads. *A. F. Vuzulutskov, V. G. Vasil'chenko, and L. K. Turchanovich.* **1988, No. 1, 56 [53].**

Effect of Gas-Mixture Composition on Characteristics of Multistage Cascade Chambers. *D. A. Abdushukurov, Yu. V. Zanevskii, and V. D. Peshekhonov.* **1989, No. 1, 78 [71].**

Study of Single-Electron Mode of Low-Pressure Multistage Cascade Chambers. *Yu. V. Zanevskii, T. Netushil, and V. D. Peshekhonov.* **1989, No. 4, 803 [66].**

3.3. Semiconductor detectors

n-Si, Sn Surface-Barrier Detectors. *I. I. Tikhov and B. B. Kovacheva.* **1977, No. 1, 46 [44].**

Subnanosecond Silicon Detector. *Z. A. Al'bikov, A. S. Kondrat'ev, V. I. Petrov, Yu. Ya. Tel'nov, P. B. Khlobystii, and I. I. Shtogrin.* **1977, No. 1, 47 [45].**

Investigation of Time Characteristics of Commercial Coaxial Large-Volume Ge(Li)-Detectors. *A. E. Banifatov, G. N. Zorin, B. M. Sabirov, V. A. Skakodub, A. D, Sokolov, Kh.-G. Ortlepp, R. S. Reznikov, and G. M. Shcherbakov.* **1977, No. 1, 53 [50].**

Use of Commercial Semiconductor Diodes as γ-Radiation Detectors. *V. V. Pevtsov.* **1977, No. 2, 398 [63].**

Pulse-Height and Time Analyzer for Nuclear Radiation Semiconductor Detectors. *P. A. Votinov, V. K. Eremin, N. B. Strokan, N. I. Tisnek, and A. Sh. Shamagdiev.* **1977, No. 3, 676 [61].**

Radiation-Resistant Fast-Electron Detectors Based on In_2Te_3-Type Semiconductors. *V. M. Koshkin, L. P. Gal'chinetskii, V. N. Kulik, G. N. Gusev, and V. R. Gur'ev.* **1977, No. 3, 681 [66].**

Study of Surface Barrier Detectors in a Xenon Ion Beam. *V. F. Kushniruk and Yu. P. Kharitonov.* **1977, No. 4, 1005 [76].**

Time Parameters of Commercial Ge(Li) Detectors. *A. I. Popov, V. E. Storizhko, V. D. Zabolotnyi, I. K. Tarasov, and Yu. P. Antuf'ev.* **1977, No. 5, 1310 [72].**

Ion-Doped Semiconductors Coordinate Detector for Charged Particles. *T. A. Agrba, I. G. Gverdtsiteli, A. I. Guldamashvili, V. D. Zhirnov, and T. A. Shaumyan.* **1978, No. 2, 313 [45].**

Photosensitivity Variation in a Semiconductor Ionizing-Radiation Detector. *A. B. Meshcheryakov.* **1978, No. 2, 524 [242].**

Characteristics of Gallium Arsenide Semiconductor Radiation Detectors. *D. M. Aidinova, A. A. Aleksandrov, S. M. Bukki, V. V. Kushin, V. K. Lyapidevskii, R. A. Muminov, and A. Ya. Yafasov.* **1978, No. 3, 631 [76].**

Connection between Spectrometric and Temporal Characteristics of Semiconductor Detectors for Nuclear Radiation. *O. V. Zakharchuk, T. M. Potapova, and O. P. Fedoseeva.* **1978, No. 4, 903 [65].**

Silicon Detectors for the Spectrometry of Electrons and of Soft X-Rays. *E. P. Tutov, N. B. Tyurina, R. P. Saprykin, and O. P. Fedoseeva.* **1978, No. 4, 907 [68].**

Semiconductor n-Si–^{119}Sn Resonant Detector. *B. B. Kovacheva, I. I. Tikhov, and Tsv. V. Bonchev.* **1978, No. 4, 910 [70].**

Determination of the Thickness of the Sensitive Layer of Semiconductor Detectors with the Aid of Beta and Gamma Sources. *A. A. Aleksandrov, I. V. Kirsanova, V. K. Lyapidevskii, and O. P. Fedoseeva.* **1978, No. 5, 1201 [45].**

Use of Dislocation-Free Silicon in Fully Depleted Nuclear-Particle Detectors. *L. S. Gatsenko, M. E. Kagarskaya, N. B. Tyurina, and O. P. Fedoseeva.* **1979, No. 1, 57 [56].**

Concerning the Determination of the Fano Factor in Semiconductors. *Yu. V. Pyatkov, N. G. Volkov, I. A. Shlyapina, A. A. Byalko, and A. K. Churakov.* **1979, No. 1, 65 [64].**

Mosaic Semiconductor Detectors for Nuclear Radiation. *B. A. Nikitin, O. V. Zakharchuk, A. P. Konovalov, A. V. Sliva, and O. P. Fedoseeva.* **1979, No. 3, 703 [83].**

Registration of Pulsed Radiation by Means of Surface-Barrier Semiconductor Detectors. *G. A. Gurov, M. A. Savel'eva, and G. P. Tochilovskii.* **1979, No. 4, 976 [91].**

Surface-Barrier Au(Si)-Detectors with Protective Glass Walls. *V. V. Pevtsov and V. V. Krayukhina.* **1979, No. 4, 580 [96].**

Germanium X-Ray Spectrometer. *N. Ya. Sedov, G. A. Shishkina, B. M. Bezymyannykh, and T. M. Pershikova.* **1979, No. 5, 1254 [61].**

Operating Stability of Germanium Radiation Detectors. *V. P. Gimanov, D. A. Goganov, L. K. Gerasyuta, and V. V. Korolev.* **1979, No. 5, 1279 [85].**

Charged-Particle Energy Measurement with a Layered Semiconductor Device. *Yu. K. Akimov, M. G. Gornov, Yu. B. Gurov, G. A. Krykanova, P. V. Morokhov, K. O. Oganesyan, B. P. Osipenko, V. A. Pechkurov, A. P. Pichugin, A. K. Ponosov, S. Yu. Porokhovoi, and F. M. Sergeev.* **1980, No. 1, 65 [69].**

Inversion Mechanism for Formation of Input "Window" of Silicon Surface-Barrier Nuclear Radiation Detectors. *B. M. Golovin, V. F. Kushniruk, and L. A. Permyakova.* **1980, No. 1, 70 [74].**

Characteristics of Composite Detectors Based on Semiconducting Detectors Plus CsI(Tl). *A. A. Aleksandrov, L. S. Gatsenko, I. Y. Kirsanova, V. K. Lyapidevskii, and O. P. Fedoseeva.* **1980, No. 2, 364 [71].**

Possibility of Using Semiconductor Detectors Based on Epitaxial Gallium Arsenide in X-Ray Radiometric Analysis. *S. P. Golenetskii, V. M. Zaletin, I. I. Protasov, and A. T. Dudarev.* **1980, No. 3, 606 [63].**

Design Features of Si(Li) Detector Blocks. *V. P. Gimanov, V. I. Zakharchenko, D. A. Goganov, A. G. Siukhin, M. Ts. Binunskii, and E. N. Mochulov.* **1981, No. 2, 351 [61].**

Determination of the Relative Efficiency of a Ge(Li) Detector in the Energy Range 0.8-6.1 MeV. *A. M. Voitov, I. N. Kastryulin, and V. A. Poyarkov.* **1981, No. 3, 612 [51].**

Calculation of Accuracy of Time Recording by Si(Li)-Detectors. *V. P. Kondrat'ev and L. V. Krasnov.* **1981, No. 6, 1379 [45].**

Data Output System for a Four-Channel Semiconductor Spectrometer. *L. V. Krasnov and I. G. Yatsyshin.* **1981, No. 6, 1387 [52].**

Operating Characteristics of Semiconductor Nuclear-Radiation Detectors at Low Temperatures. *N. P. Afanas'eva, V. K. Eremin, N. B. Strokan, and A. Sh. Shamagdiev.* **1982, No. 1, 76 [73].**

Silicon-Lithium Detectors for Charged-Particle Spectrometry over a Wide Range of Energies. *B. B. Baizakov, B. N. Zaveryukhin, A. Sh. Iskanderov, R. A. Muminov, and A. Ya. Yafasov.* **1982, No. 2, 321 [41].**

ΔE Detectors Based on Epitaxial Silicon Structures. *I. I. Evseev, V. V. Kyrachko, and A. A. Didenko.* **1982, No. 2, 324 [43].**

Use of a High-Resolution Semiconductor Detector in Combination with the Black-Absorber Method to Determine the Probability of Resonance Emission of γ Rays. *V. A. Varnek and V. I. Volegzhanii.* **1982, No. 2, 327 [46].**

Efficiency of Recording Thermal Neutrons with Semiconductor Detectors Having Planar Convertors. *N. O. Elyutin, V. K. Lyapidevskii, A. O. Nikitin, and B. G. Perezhogin.* **1982, No. 5, 1107 [62].**

Active Cooling of Semiconductor Detectors Designed to Detect Charged Particles in Outer Space. *T. Ys. Belousova, N. A. Vlasova, M. I. Panasyuk, S. A. Filippychev, A. G. Myasnikov, É. N. Sosnovets, L. M. Glatkikh, É. A. Izupak, and E. K. Iordanovshili.* **1983, No. 4, 976 [211].**

Operation of Measuring Equipment with Semiconductor Radiation Detectors in the Fluctuation Mode. *I. I. Lazutkin.* **1983, No. 5, 1025 [31].**

Silicon Surface-Barrier Detectors Alloyed with Phosphor in a Flux of Thermal Neutrons. *M. G. Gornov, Yu. B. Gurov, M. A. Morokhovets, K. N. Neimark, B. P. Osipenko, and V. G. Sandukovskii.* **1983, No. 5, 1054 [53].**

Determination of the Thickness of Structure Layers in Semiconductor Detectors with the Aid of Charged Particles. *M. G. Gornov, Yu. B. Gurov, P. V. Morokhov, B. P. Osipenko, A. P. Pichugin, and V. G. Sandukovskii.* **1983, No. 6, 1292 [42].**

Improvement of the Parameters of Ge(Li) Spectrometers by Discrimination during the Pulse Rise Time. *A. A. Bogdzel', A. Duka-Zoiomi, Ya. Kliman, and V. Presperin.* **1984, No. 1, 44 [49].**

Unit for Detecting Gamma and X-Rays Using Mercury Diiodide Operating at Room Temperature. *K. G. Bulatetskii, V. M. Zaletin, and V. I. Fomin.* **1984, No. 3, 613 [90].**

Separation of Stopping Events of Charged Particles in a Gas Target with the Aid of Semiconductor Detectors. *G. F. Bin'ko, M. G. Gornov, Yu. P. Dobretsov, V. G. Kirillov-Ugryumov, A. A. Maloletnev, A. L. Mikaelyan, A. P. Pichugin, V. P. Protasov, V. I. Salev'ev, A. Ya. Smakov, A. A. Khomutov, and A. V. Shishkov.* **1984, No. 5, 1081 [36].**

Cadmium Telluride Gamma-Radiation Detectors with a High Energy Resolution. *L. A. Alekseeva, P. G. Dorogov, V. I. Ivanov, and A. Kh. Khusainov.* **1985, No. 1, 52 [54].**

Distinctive Features of the Fabrication and the Characteristics of Coaxial Si(Li) Nuclear Radiation Detectors. *N. P. Afanas'eva, L. I. Pashuk, and A. K. Pustovoit.* **1985, No. 2, 330 [61].**

Radial Position-Sensitive Semiconductor Detector. *B. Amov, A. Dzhakov, B. P. Osipenko, E. Pentsya, and V. G. Sandukovskii.* **1985, No. 3, 561 [57].**

Precision Determination of Charge Losses in Semiconductor Detectors with Variable Capacitance. *A. V. Vasil'ev, E. M. Verbitskaya, V. K. Eremin, and N. B. Strokan.* **1985, No. 5, 1047 [56].**

Study of Radial Dependence of Registration Efficiency and Determination of Dimensions of Sensitive Areas of Si(Li) Detectors. *V. V. Levenets, O. I. Ekhichev, N. F. Severin, and A. A. Shchur.* **1986, No. 4, 824 [63].**

Using Planar Silicon Photodiodes for Precision α Spectrometry. *V. K. Eremin, E. M. Verbitskaya, A. A. Gribov, V. V. Gusakov, N. B. Strokan, S. M. Tairov, U. Sh. Turebekov, and E. V. Shokina.* **1986, No. 6, 1289 [49].**

Detectors of Short-Range Particles Based on Neutron-Transmutation-Doped Silicon. *E. M. Verbitskaya, P. M. Grinshtein, R. I. Guchetl', V. K. Eremin, N. B. Strokan, I. S. Shlimak, and E. V. Shokina.* **1987, No. 4, 827 [68].**

Semiconductor Detectors Produced by Lithium Diffusion Stimulated by Thermal Radiation. *M. G. Gornov, Yu. B. Gurov, Z. T. Kim, C. Y. Kim, B. P. Osipenko, and J. Jurkowski.* **1988, No. 1, 61 [57].**

Determination of Sensitivity and Time Resolution of Semiconductor Detectors. *N. I. Terent'ev.* **1988, No. 2, 330 [64].**

Device for Absolute Calibration of Spectral Sensitivity of Semiconductor X-Ray Detectors. *A. Yu. Kropotov, O. N. Morgun, and V. V. Chernyi.* **1988, No. 3, 572 [50].**

Charge Multiplication in Silicon Surface-Barrier Detectors for Irradiation by ^{40}Ar Ions. *V. F. Kushniruk, Guen Tkai Kha, and Yu. S. Tsyganov.* **1989, No. 3, 555 [57].**

Large-Area Semiconductor Detectors of High-Resistance Silicon Produced by Neutron Doping. *M. G. Gornov, O. M. Grebennikova, Yu. B. Gurov, M. A. Morokhovets, K. N. Neimark, B. P. Osipenko, V. V. Fedorov, and E. S. Yurova.* **1990, No. 3, 554 [74].**

Planar Detectors of High-Purity Germanium. *M. G. Gornov, Yu. B. Gurov, B. P. Osipenko, O. I. Podkopaev, A. M. Soldatov, and J. Jurkowski.* **1990, No. 4, 802 [83].**

Silicon Planar Ion Detectors with High Energy Resolution. *E. M. Verbitskaya, V. K. Eremin, A. M. Malyarenko, N. B. Strokan, V. L. Sukhanov, I. Borani, and B. Schmidt.* **1991, No. 3, 534 [56].**

Characteristics of Silicon Planar Detectors in High-Energy Particle Beams. *I. P. Barkov, I. M. Gazizov, V. A. Kachanov, L. L. Kurchaninov, N. E. Mikhalin, V. V. Rykalin, A. I. Saraikin, V. L. Solov'yanov, V. A. Stankevich, and V. Yu. Khodyrev.* **1991, No. 4, 797 [57].**

3.3.1. Charge-coupled devices, strip detectors, photodiodes

Development Prospects of Scintillator-Photodiode Systems (Review). *V. D. Ryzhkov, P. E. Stadnik, and Yu. A. Yakovlev.* **1984, No. 5, 1045 [6].**

Multistrip Beta-Particle Semiconductor Detectors for Use with Magnetic Spectrometers. *R. A. Muminov, F. U. Kugatova, D. K. Khasanov, and A. Ya. Yafasov.* **1977, No. 3, 679 [64].**

Matching the Spectral Characteristics of Scintillators and Photodiodes. *V. D. Ryzhikov, P. E. Stadnik, and Yu. A. Yakovlev.* **1982, No. 4, 842 [57].**

Detection of Light Flashes in a CsI(Tl) Scintillator with the Aid of a Semiconductor Detector. *Yu. G. Zdesenko and B. N. Kropivyanskii.* **1985, No. 1, 47 [50].**

Position-Sensitive Neutron Detector Based on a Scintillator and a Device with Charge Coupling. *P. N. Chernyshov, A. A. Sumbatyan, V. Ya. Kezerashvili, S. P. Gaevoi, V. M. Gataulin, and V. A. Trunov.* **1986, No. 6, 1297 [56].**

Prototype of Scintillation Vertex Detector with Charge-Coupled-Device Readout. *N. S. Bamburov, V. G. Vasil'chenko, V. N. Govorun, S. V. Golovkin, A. M. Gorin, A. G. Denisov, A. A. Zaichenko, P. N. Kazakov, S. V. Kaimachnikov, E. N. Kozarenko, I. V. Manuilov, A. M. Medvedkov, S. V. Petrenko, V. I. Rykalin, A. V. Ryazantsev, and V. P. Sakharov.* **1990, No. 3, 558 [77].**

Charge-Coupled-Device-Based Position-Sensitive Soft-X-Ray and Alpha-Particle Detector. *S. E. Vasil'ev, Yu. V. Zanevskii, A. B. Ivanov, L. P. Smykov, and G. A. Cheremukhina.* **1991, No. 1, 70 [79].**

Silicon Strip Detectors. *I. P. Barkov, I. M. Gazizov, L. L. Kurchaninov, V. V. Rykalin, A. I. Saraikin, and V. A. Stankevich.* **1991, No. 3, 529 [52].**

3.4. Luminescent detectors

Conversion of Luminous Radiation in Nuclear Physics Experiments (Review). *Yu. A. Tsirlin and V. V. Pomerantsev.* **1988, No. 4, 821 [7].**

Installation for the Investigation of Gas Luminescence Excited by the Products of Neutron Nuclear Reactions. *I. P. Gur'ev, A. B. Dmitriev, V. S. Il'yashenko, A. I. Mis'kevich, and B. S. Salamakha.* **1978, No. 5, 1194 [39].**

Measurement of the Absolute Luminescence Yield of Air Subjected to the Influence of ^{239}Pu α Particles. *S. S. Vetokhin, A. N. Pertsev, I. V. Reznikov, and L. M. Rusakovich.* **1981, No. 1, 58 [58].**

Controlled Luminescence Converter of Ionizing Radiation. *E. A. Gusev, L. M. Zykin, V. A. Klochko, V. V. Klyuev, B. I. Leonov, and A. A. Petushkov.* **1983, No. 5, 1058 [56].**

Spectrometric Features of Tungstates. *L. L. Nagornaya and A. S. Cherkasov.* **1986, No. 6, 1285 [45].**

Luminescence Pickup of Proton-Beam-Current Density. *E. A. Meleta, N. I. Malykh, I. K. Sidorova, T. I. Prokhorova, and O. M. Ostrogina.* **1991, No. 2, 257 [31].**

3.4.1. Scintillation detectors

3.4.1.1. Inorganic scintillators

Scintillation Spectrometers with an NaI(Tl) Crystal for Increased Loads (Review). *B. S. Novisov and A. S. Maksimenko.* **1981, No. 3, 559 [7].**

Light Output of CsI(Tl) Thin-Film Detectors. *V. F. Levchenko, T. Sartbaev, and G. P. Skrebtsov.* **1977, No. 1, 56 [52].**

Scintillation Detection Units with CsI(Tl) Crystals and Reference Alpha-Sources. *Yu. A. Surkov, O. P. Sobornov, and I. A. Lebedev.* **1977, No. 2, 400 [65].**

Portable Electron Gun for Investigating and Adjusting Particle Detectors. *S. V. Golovkin and A. M. Zaitsev.* **1977, No. 4, 944 [21].**

Light Output of CsI(Tl) Crystal Exposed to Protons with 3-15 MeV Energies. *D. Dorchoman, M. Konstantin, D. Lazarovich, I. Muntyanu, K. O. Oganesyan, and S. Yu. Porokhovoi.* **1977, No. 4, 1003 [74].**

Kinetics of Scintillation in Condensed Xenon. *T. Ya. Voronova and I. M. Obodovskii.* **1978, No. 2, 326 [56].**

Dependence of the Growth Time of a Scintillation Pulse in CsI Crystals on the Concentration of the Activator and on the Ionization Density. *V. K. Lyapidevskii and V. P. Prorvich.* **1978, No. 5, 1228 [69].**

Efficiency of Detection of Gamma Quanta by NaI(Tl) Crystals for Volume Cylindrical Sources. *V. P. Bamblevskii.* **1979, No. 2, 362 [68].**

Light Yield of CsI(Tl) and CsI(Na) Crystals under Bombardment by Charged Particles. *D. Dorchioman, M. Konstantin, D. Lazarovich, I. Muntyanu, K. O. Oganesyan, and S. Yu. Porokhovoi.* **1979, No. 4, 970 [86].**

Dependence of Light Yield of Inorganic Scintillation Detectors on Energy of Gamma and Alpha Radiation. *O. P. Sobornov and I. A. Lebedev.* **1980, No. 2, 361 [69].**

Characteristics of Composite Detectors Based on Semiconducting Detectors Plus CsI(Tl). *A. A. Aleksandrov, L. S. Gatsenko, I. Y. Kirsanova, V. K. Lyapidevskii, and O. P. Fedoseeva.* **1980, No. 2, 364 [71].**

Influence of Temperature on Intrinsic Energy Resolution of NaI(Tl) Crystals. *É. L. Vinograd, Yu. A. Tsirlin, and N. Yu. Gurevich.* **1980, No. 3, 611 [67].**

Results of Testing Rectangular NaI(Tl) Crystal Counters. *M. D. Minakov, S. I. Serednyakov, Yu. M. Karpov, and Yu. P. Pavlov.* **1980, No. 4, 868 [58].**

Influence of an External Electric Field upon the Rising Flank of CsI–Tl γ Scintillations. *D. I. Abramovich, I. R. Gulakov, and A. N. Pertsev.* **1981, No. 1, 55 [55].**

Assessing the Phosphorescence Generated in NaI(Tl) after Excitation by Betatron Bremsstrahlung. *V. G. Volkov.* **1981, No. 2, 355 [65].**

Possible Improvement of the Amplitude-Time Characteristics of the BDÉG2-39 Scintillation Block. *A. V. Berestov and F. E. Zyazyukya.* **1983, No. 5, 1046 [47].**

Investigation of the Characteristics of Thin CsI Film Scintillation Detectors in Recording 20-540-keV Protons. *Yu. I. Usikov, Yu. T. Bydai, G. I. Primenko, Yu. A. Tsirlin, and I. V. Éstulin.* **1984, No. 1, 88 [86].**

Specific Light Yield of CsI(Tl) Scintillators in the Case of Soft 2.6-17.4-keV X-Rays. *V. K. Lyapidevskii, V. A. Prorvich, and A. V. Sartori.* **1984, No. 2, 282 [28].**

Condensed-Krypton Scintillators of Diameter 0.5 m. *S. N. Anisimov, A. I. Bolozdynya, V. N. Stekhanov, V. P. Miroshnichenko, and B. U. Rodionov.* **1984, No. 6, 1355 [51].**

Detection of Light Flashes in a CsI(Tl) Scintillator with the Aid of a Semiconductor Detector. *Yu. G. Zdesenko and B. N. Kropivyanskii.* **1985, No. 1, 47 [50].**

Scintillation Properties of Liquid Xenon. *I. R. Barabanov, V. N. Gavrin, and A. M. Pshukov.* **1985, No. 1, 50 [52].**

Corrections for Nuclear Interaction during the Detection of Light Nuclei in an NaI(Tl) Crystal. *L. I. Abashidze, V. V. Avdeichikov, A. I. Bogdanov, V. A. Budilov, J. Zlomanczuk, N. K. Zhidkov, V. D. Maisyukov, V. A. Nikitin, P. V. Nomokonov, and A. A. Povtoreiko.* **1985, No. 1, 57 [58].**

Recording Efficiency of NaI(Tl) Crystals for γ Radiation of Hollow Cylindrical Sources. *R. Yu. Yasyulenis.* **1985, No. 3, 584 [78].**

Spectrometric Characteristics of Cadmium Sulfide-Based Scintillators. *Yu. G. Zdesenko, A. S. Nikolaiko, V. D. Ryzhikov, and V. I. Silin.* **1985, No. 3, 587 [80].**

NaI(Tl) Scintillation Counter with Vacuum Photodiode. *I. Yu. Red'ko, S. I. Serednyakov, V. A. Aksenov, G. M. Kazakevich, and L. A. Kuznetsova.* **1986, No. 2, 346 [76].**

Stability of Scintillation Spectrometer with NaI(Tl) Crystal and FÉU-49 Photomultiplier at High Count Rates. *A. S. Belousov, Ya. A. Vazdik, E. N. Malinovskii, S. V. Rusakov, Yu. V. Solov'ev, A. M. Fomenko, and P. N. Shareiko.* **1986, No. 3, 559 [49].**

Total-Absorption Detector with CsI(Tl) Crystal for Measurement of Gamma-Quantum Energies of 10-10^4 MeV. *N. K. Bulgakov, I. Wojtkowska, V. M. Golovatyuk, Z. Guzik, N. I. Zimin, R. B. Kadyrov, T. S. Nigmanov, V. D. Ryabtsov, I. A. Tyapkin, D. V. Ural'skii, N. A. Filatova, E. N. Tsyganov, M. D. Shafranov, A. Forycki, M. D. Bavizhev, G. D. Kovalenko, B. I. Shramenko, I. N. Ivakhenko, Yu. V. Nil'sen, and B. A. Yur'ev.* **1986, No. 4, 813 [53].**

Resolution of NaI(Tl) Spectrometer in Absorbed-Energy Range of 0.6-125 MeV. *S. A. Gerzon, A. N. Martem'yanov, V. L. Novikov, S. V. Semenov, and V. I. Ushakov.* **1987, No. 5, 1058 [43].**

Particle Identification by Shape of Scintillation in CsI. *A. A. Gusev and G. I. Pugacheva.* **1988, No. 1, 64 [60].**

Production of Wells in NaI(Tl) Crystals. *G. I. Antonenko, L. P. Voinov, and L. I. Pershina.* **1988, No. 2, 487 [190].**

Energy Resolution of Scintillation Detector with NaI(Tl) Single Crystal. *A. I. Per'kov and S. N. Fedotov.* **1988, No. 3, 590 [65].**

Comparative Analysis of NaI(Tl) and $Bi_4Ge_3O_{12}$ Crystals in Neutron and Gamma Registration. *V. V. Kamanin, A. Kugler, Yu. G. Sobolev, V. F. Strizhov, and A. S. Fomichev.* **1988, No. 6, 1435 [61].**

Selection of Optimum Thickness of NaI(Tl) Scintillator for Escape-Peak Gamma Registration. *S. P. Ekimov and A. G. Volchok.* **1988, No. 6, 1440 [64].**

High-Speed Liquid Scintillator-Converter of BaF_2 Radiation. *L. Sh. Afanasiadi, Ya. A. Valbis, N. Z. Galunov, I. V. Lysova, and Yu. A. Tsirlin.* **1989, No. 1, 86 [77].**

Shape of Light-Pulses of NaI(Tl) Scintillators as a Function of Temperature. *N. I. Bashkirov.* **1989, No. 2, 332 [72].**

$CdWO_4$, ZnSe, and $ZnWO_4$ Scintillators in Studies of 2β Processes. *F. A. Danevich, Yu. G. Zdesenko, A. S. Nikolaiko, S. F. Burachas, L. L. Nagornaya, V. D. Ryzhikov, and M. M. Batenchuk.* **1989, No. 5, 1059 [80].**

Time and Energy Resolutions of BaF_2 Scintillator with Radiation Converters. *L. Sh. Afanasiadi, N. Z. Galunov, A. V. Kuznichenko, V. N. Lebedev, I. V. Lysova, and N. I. Shishov.* **1989, No. 5, 1064 [85].**

Registration of $KMgF_3$ Scintillation by Wire Chamber with Triethylamine as Photosensitive Additive. *A. F. Buzulutskov, V. G. Vasil'chenko, and L. K. Turchanovich.* **1990, No. 1, 81 [91].**

CsI(Tl)-Crystal-Based Scintillation Detectors for Computer-Assisted Tomography. *L. V. Kovaleva, N. Yu. Gurevich, E. L. Vinograd, S. N. Kozlov, I. D. Vlasova, and Yu. A. Tsirlin.* **1990, No. 3, 701 [198].**

Spectrometric Characteristics of Bismuth-Germanate Detectors in X-Ray and Gamma-Quantum Energy Range of from 4.5 to 662 keV. *V. V. Averkiev, V. K. Lyapidevskii, and G. Kh. Salakhutdinov.* **1990, No. 4, 799 [80].**

Study of Characteristics of Crystal Scintillators in the Vacuum-Ultraviolet Region. *A. F. Buzulutskov, V. G. Vasil'chenko, L. K. Turchanovich, Ya. A. Valbis, Z. A. Rachko, Ya. L. Yansons, and N. M. Khaidukov.* **1990, No. 5, 1046 [71].**

Possibility of Creation of Calorimetric Detector based on $KMgF_3$ Scintillator and Plane-Parallel Avalanche Chamber. *A. F. Buzulutskov, V. G. Vasil'chenko, and L. K. Turchanovich.* **1990, No. 5, 1049 [74].**

Spectrometric Detectors Based on $CdWO_4$ Crystals. *L. L. Nagornaya, O. V. Zelenskaya, Yu. Ya. Vostretsov, M. E. Globus, A. E. Ovechkin, V. D. Ryzhikov, E. P. Sysoeva, V. A. Sulyga, and I. A. Tupitsyna.* **1991, No. 2, 298 [66].**

3.4.1.2. Organic scintillators

Efficiency of Alpha-Radiation Recording by Means of Plastic Scintillation Granules. *V. M. Ékkerman, T. N. Seredenko, and V. M. Solomonov.* **1977, No. 1, 50 [47].**

Plastic Scintillator of High Transparency Containing Gadolinium. *V. I. Aleshin, A. M. Bakalyarov, A. Ya. Balysh, V. I. Lebedev, S. A. Malinovskaya, L. P. Vetrenko, and L. E. Pelepyagina.* **1977, No. 4, 997 [68].**

Investigation of Dependence of Homogeneity of Light Collection in a Large Size Scintillation Counter on Kind of Reflector. *R. G. Astvatsaturov, V. I. Ivanov, E. Knapik, V. A. Kramarenko, A. I. Malakhov, and M. N. Khachaturyan.* **1977, No. 4, 1001 [72].**

Monte Carlo Calculation of Sensitivity Function for Nonhydrogenous Liquid γ-Ray Detector. *M. V. Savin, E. N. Donskoi, I. N. Paramonova, V. I. Roslov, and A. A. Sadovoi.* **1977, No. 4, 1009 [79].**

Plastic Scintillator of Increased Transparency Containing ^6Li. *V. R. Negina, V. N. Popov, and V. V. Nazarov.* **1980, No. 5, 1118 [60].**

Thermal Stabilization of the Optical Characteristics of Plastic Scintillators. *I. A. Berezin, V. M. Gorbachev, V. V. Nazarov, V. R. Negina, V. N. Popov, I. N. Sten'gach, and N. A. Uvarov.* **1981, No. 1, 52 [53].**

Influence of the Collection of Light in Hollow Lightguides with an Internal Mirror Coating upon the Time Resolution of Pulsed Cherenkov γ Detectors. *G. D. Belousov, V. L. Buryakov, I. M. Egelev, and O. V. Kozlov.* **1981, No. 2, 365 [73].**

Properties of a New Class of Organic Scintillators: Derivatives of Salicylic Acid. *I. G. Mandzhukov, B. V. Mandzhukova, Ts. V. Bonchev, and G. I. Lazarova.* **1981, No. 3, 605 [45].**

Investigation of the Time of Light Collection in Cylindrical Scintillators. *M. I. Ivanov, A. V. Kil'pio, O. V. Kozlov, A. A. Malyutin, and M. V. Prokuronov.* **1981, No. 4, 871 [43].**

Characteristics of Elements of Scintillation Hodoscopes with Scintillators up to 7 m Long. *Ya. Bem, S. Vyskocil, P. Zawada, Z. V. Krumshtein, E. A Monich, B. A. Murav'ev, A. I. Ronzhin, A. I. Kharchilava, K. Szafarik, and Z. Cisek.* **1981, No. 5, 1153 [55].**

Energy Dependence of the Stopping Power of Polypyromellithimide. *I. Ya. Barit, Yu. G. Balashko, L. S. Dul'kova, and V. P. Zavarzina.* **1981, No. 5, 1158 [59].**

Spontaneous Scintillation Counter for Registration of Antineutrino Fluxes from Collapsing Stars in the Milky Way and Study of High-Energy Muon Interactions. *V. I. Beresnev, R. I. Enikeev, G. T. Zatsepin, V. B. Korchagin, P. V. Korchagin, A. S. Mal'gin, O. G. Ryazhskaya, V. G. Ryasnyi, V. P. Talochkin, A. A. Chudin, and V. F. Yakushev.* **1981, No. 6, 1382 [48].**

Thermal Degradation of Plastic Scintillators. *E. A. Andreeshchev, S. F. Kilin, Yu. P. Kushakevich, I. M. Rozman, and V. M. Shoniya.* **1982, No. 6, 1348 [35].**

Scintillation Pulse Shape Provided by Polyvinylxylene Plastic Scintillators. *N. Z. Galunov, O. A. Gunder, I. V. Kopina, and Yu. A. Tsirlin.* **1982, No. 6, 1352 [38].**

Spectroscopic Properties of Lead-Containing Plastic Scintillators. *V. V. Belozerov, D. V. Viktorov, I. M. Rozman, A. M. Sirenko, and V. M. Shoniya.* **1983, No. 1, 41 [42].**

Time Resolution of a Large Scintillation Counter with a Hemispherical Light Collector for Ionizing Radiation. *A. N. Alent'ev, Ya. L. Blokh, and A. A. Chaikin.* **1983, No. 1, 44 [44].**

Low-Cost Stabilized Scintillation Detector. *O. M. Anshakov, V. A. Chudakov, and V. I. Gurinovich.* **1983, No. 1, 48 [47].**

Plastic Scintillator with Short Pulse Duration. *E. A. Andreeshchev, S. F. Kilin, K. A. Kovyrzina, Yu. P. Kushakevich, I. M. Rozman, and V. M. Shoniya.* **1983, No. 3, 548 [52].**

Influence of the Diffusion of Light from Scintillations upon the Shape of the Scintillation Pulse in Cylindrical Plastic Scintillators. *N. Z. Galunov, I. V. Kopina, L. I. Mitsal, and Yu. A. Tsirlin.* **1983, No. 4, 829 [81].**

Measurement of the Collection Time of Light in Plastic Scintillators. *G. D. Belousov, V. L. Buryakov, S. F. Kilin, O. Y. Kozlov, Yu. P. Kushakevich, and I. M. Rozman.* **1983, No. 5, 1050 [50].**

Investigation of a Section of a Large Cylindrical Scintillation Spectrometer. *Yu. M. Antipov, N. P. Budanov, Yu. P. Gorin, V. S. Datsko, G. V. Mitsel'makher, A. A. Nozdrin, A. I. Petrukhin, and S. L. Smirnova.* **1983, No. 6, 1273 [26].**

Wide-Aperture Scintillation Counter with Two FÉU-49 Photomultipliers. *O. E. Gorchakov, A. V. Kuptsov, and L. Luchan.* **1983, No. 6, 1297 [45].**

Characteristics of Liquid Scintillator for Recording $\tilde{\nu}_e$. *A. A. Borovoi, S. V. Nikolaev, and A. V. Perfilov.* **1984, No. 2, 286 [31].**

Large Liquid Scintillation Counter. *N. I. Bozhko, A. S. Vovenko, V. Yu. Glebov, V. N. Goryachev, V. I. Kochetkov, V. I. Kvartsov, V. I. Poletaev, Yu. I. Salomatin, V. N. Rychenkov, S. K. Chernichenko, R. M. Fakhrutdinov, and G. L. Shchukin.* **1985, No. 2, 325 [57].**

Spatial Resolution of Plastic Scintillation Converter. *V. L. Gladchenko and V. V. Gorbunov.* **1985, No. 6, 1285 [47].**

Scintillation Counter with Maximal Effective Area. *A. N. Alent'ev.* **1986, No. 2, 339 [71].**

Longevity of Plastic Scintillators. *V. L. Zyablin, S. F. Kilin, A. F. Kulakova, Yu. P. Kushakevich, I. M. Rozman, and V. M. Shoniya.* **1986, No. 2, 342 [73].**

Efficiency of Charged-Particle Identification by Measurement of Energy Release in Thick Scintillator. *A. V. Vlasov, V. B. Gavrilov, P. V. Degtyarenko, E. A. Doroshkevich, Yu. V. Efremenko, A. V. Stavinskii, F. M. Khasanov, B. B. Shvartsman, and S. M. Shuvalov.* **1986, No. 3, 563 [53].**

Dependence of Light Yield of Scintillation Fibers on Refractive Index of Sheath. *A. M. Gorin, A. B. Kardanev, A. I. Peresypkin, and V. I. Rykalin.* **1986, No. 4, 817 [57].**

Measurement of the Transparency of Plastic Scintillators. *A. I. Peresypkin.* **1986, No. 5, 1030 [44].**

Light Attenuators for Plastic Scintillation Detectors. *Ch. A. Tret'yakova.* **1986, No. 6, 1449 [188].**

Fabrication and Study of Cylindrical Scintillation Counters of the Ares Spectrometer. *V. A. Baranov, P. G. Evtukhovich, S. M. Korenchenko, D. A. Mzhaviya, V. S. Smirnov, and Z. B. Tsamalaidze.* **1987, No. 6, 1317 [40].**

Uniformity of Light Collection of 0.5-m^2 Plastic Scintillation Detector. *Yu. N. Bazhutov.* **1987, No. 6, 1321 [43].**

SPS-B18 High-Speed Plastic Scintillator. *E. A. Andreeshchev, V. S. Avedisyan, S. M. Veronyan, V. L. Zyablin, K. A. Kovyrzina, Yu. P. Kushakevich, I. M. Rozman, and V. M. Shoniya.* **1988, No. 3, 593 [67].**

Performance of Molded Plastic Scintillators. *N. S. Gen, V. E. Leman, V. M. Solomonov, V. F. Pererva, V. S. Pilipenko, V. V. Pomerantsev, V. F. Evtushenko, I. Ya. Berov-Ol'khovoi, L. N. Plakhotina, V. A. Sulyga, and L. M. Yankilevich.* **1988, No. 4, 858 [35].**

Light Transmission from Scintillators by Optical Fiber with Reradiator. *V. I. Kryshkin and A. I. Ronzhin.* **1988, No. 4, 861 [37].**

Shape of Scintillation Pulses of High-Speed Liquid Scintillators. *L. Sh. Afanasiadi, N. Z. Galunov, B. M. Krasovitskii, I. V. Lysova, and Yu. A. Tsirlin.* **1988, No. 5, 1159 [62].**

Liquid Scintillators with High n-γ Separating Power. *L. Sh. Afanasiadi, N. G. Galunov, I. V. Lysova, Yu. A. Tsirlin, and N. I. Shishov.* **1988, No. 6, 1432 [58].**

Fabrication of Polystyrene Scintillators. *N. V. Vinogradova, R. S. Gal'perina, Yu. P. Gorin, V. G. Lapshin, A. A. Nozdrin, A. I. Petrukhin, and V. I. Rykalin.* **1989, No. 4, 791 [56].**

Calculation of Light-Collection Coefficients of Plastic Scintillators in Registration of Pulsed Neutron Fluxes. *N. N. Kirichenko, V. K. Lyapidevskii, and V. B. Perezhogin.* **1989, No. 5, 1066 [87].**

Characteristics of Polystyrene Scintillation Strips. *V. V. Ammosov, V. A. Gapienko, I. G. Golutvina, A. G. Denisov, L. Ya. Zhil'tsova, V. G. Lapshin, A. I. Malakhov, E. N. Matveeva, E. A. Mel'nikov, T. D. Pilipenko, O. G. Rubina, V. I. Rykalin, and A. Yu. Semenov.* **1990, No. 1, 86 [94].**

Effect of Light Collection on Speed of Organic Scintillators. *N. Z. Galunov and T. A. Tsyganko.* **1990, No. 1, 90 [97].**

Prototype of Scintillation Vertex Detector with Charge-Coupled-Device Readout. *N. S. Bamburov, V. G. Vasil'chenko, V. N. Govorun, S. V. Golovkin, A. M. Gorin, A. G. Denisov, A. A. Zaichenko, P. N. Kazakov, S. V. Kaimachnikov, E. N. Kozarenko, I. V. Manuilov, A. M. Medvedkov, S. V. Petrenko, V. I. Rykalin, A. V. Ryazantsev, and V. P. Sakharov.* **1990, No. 3, 558 [77].**

High-Temperature Scintillation Units. *B. V. Grinev and V. L. Yankelevich.* **1990, No. 4, 795 [77].**

Characteristics of Large-Scale Polystyrene Scintillation Counters. *V. V. Ammosov, V. A. Gapienko, A. G. Denisov, and E. A. Mel'nikov.* **1990, No. 6, 1279 [54].**

Injection-Molded Polystyrene Scintillator for Hadron Calorimeter. *M. G. Kadykov, V. K. Semenov, and V. I. Syzdalev.* **1991, No. 1, 78 [85].**

Comparative Characteristics of Polystyrene Scintillation Strips. *V. A. Gapienko, I. G. Golutvina, A. G. Denisov, L. Ya. Zhil'tsova, A. I. Malakhov, E. N. Matveeva, E. A. Mel'nikov, T. D. Pilipenko, O. G. Rubina, and A. Yu. Semenov.* **1991, No. 4, 801 [60].**

Optimization of Scintillator Thickness for Weak Pulsed Photon Fluxes. *V. F. Kositsyn, T. K. Ragimov, and A. V. Shumakov.* **1991, No. 4, 803 [62].**

3.4.1.3. General aspects of scintillation techniques

Scintillation Pickups with Plateau in the Counting Characteristic (Review). *Yu. I. Sokolov.* **1979, No. 1, 1 [7].**

Scintillation Time Spectrometers (Review). *A. M. Medvedev and M. N. Medvedev.* **1989, No. 4, 749 [19].**

Inhomogeneity in Light Collection in Large Scintillation Counter. *A. N. Alent'ev and I. G. Shibaev.* **1977, No. 3, 669 [55].**

Investigation of Amplitude Characteristics of Scintillation Counters. *I. V. Glavanakov and V. N. Stibunov.* **1978, No. 1, 32 [33].**

Use of Low-Efficiency Counter for the Measurement of the Average Number of Charged Particles. *A. S. Belousov, Y. A. Vazdik, E. I. Malinovskii, S. V. Rusakov, Yu. V. Solov'ev, and P. N. Shareiko.* **1978, No. 5, 1230 [71].**

Inhomogeneity of Light Collection in a Large Scintillation Counter. *N. Alent'ev.* **1979, No. 5, 1271 [77].**

Lead Scintillation Shower Detector. *E. M. Boyakhchyan, I. A. Keropyan, and N. I. Nikitin.* **1980, No. 3, 596 [55].**

Efficiency of Light Collection in a Large Scintillation Counter. *A. N. Alent'ev and A. A. Chaikin.* **1980, No. 3, 614 [70].**

System for Measuring the Flight Time of Particles on a Scintillation Telescope. *Yu. V. Malovichko and V. I. Stepanov.* **1980, No. 4, 859 [50].**

Scintillator-Photodetector Detection System with Improved Energy Resolution. *F. U. Kugatova, R. A. Muminov, and A. Ya. Yafasov.* **1980, No. 6, 1350 [32].**

Method of the Characteristic Amplitudes of β Spectra Measured with Scintillation Detectors. *V. M. Ekkerman.* **1981, No. 3, 593 [36].**

Dependence of the Spectrometric Properties of Scintillation Detectors upon the Energy of Radiation. *O. P. Sobornov, N. A. Vartanov, and O. P. Shcheglov.* **1981, No. 3, 597 [39].**

Scintillation Counter with a Recording Efficiency Proportional to the Energy of γ Radiation. *A. A. Bergman, A. G. Kolosovskii, S. P. Kuznetsov, A. N. Medvedev, and A. E. Samsonov.* **1981, No. 3, 601 [42].**

Choice of Photomultiplier Size in Total-Absorption Counters for High Energies. *V. A. Davydov, A. V. Inyakin, D. B. Kakauridze, V. A. Kachanov, G. P. Penier, Yu. D. Prokoshkin, and A. V. Startsev.* **1981, No. 3, 633 [69].**

Characteristics of a Scintillation Detector Working with a Current-Stabilized Photomultiplier. *V. A. Kolyubin and A. A. Pominov.* **1981, No. 4, 874 [46].**

Setup for Investigating the Shape of Scintillation-Light Pulses from Thin Scintillators with the Technique of Individual Photon Counting. *N. Z. Galunov, N. S. Gen, E. E. Krishtal', and Yu. A. Tsirilin.* **1983, No. 3, 544 [49].**

Stabilization of Scintillation Detector by Reference Signal from Radioactive Source. *O. I. Nedavnii.* **1984, No. 6, 1363 [58].**

Weak-Scintillation Light Yield Determination. *I. G. Mandzhukov and B. V. Mandzhukova.* **1987, No. 3, 657 [144].**

Scintillation Detectors with Alpha and Gamma Reference Sources. *O. P. Sobornov, I. A. Lebedev, and O. P. Shcheglov.* **1988, No. 3, 586 [62].**

Scintillation Unit for Alpha-Radiation Detection. *E. B. Ershov, Yu. A. Ivanov, and V. A. Yakovlev.* **1988, No. 5, 1156 [61].**

Optimization of Scintillator Thickness for Registration of X-Ray and Gamma Radiation Over a Wide Energy Range. *V. D. Ryzhikov and V. P. Sokhin.* **1988, No. 5, 1303 [177].**

Analog Method for Separation of Electrons and Hadrons in Layered Scintillation Calorimeters. *V. I. Kryshkin and A. I. Ronzhin.* **1989, No. 2, 325 [67].**

Identification of Signals from Scintillators with Different Deexcitation Times by Time Referencing to Mathematical Center of Gravity of Pulses. *V. V. Borog, V. V. Dronov, V. G. Lapshin, and V. I. Rykalin.* **1989, No. 5, 1071 [91].**

Integrated Energy Albedo of Solid-State Detectors for Computer-Aided X-Ray Tomography. *A. G. Tur'yanskii, O. P. Fedoseeva, and T. L. Fedorova.* **1990, No. 1, 93 [100].**

Systems of Track Detectors Based on Double Scintillation Hodoscopes. *V. N. Evdokimov and A. I. Ronzhin.* **1990, No. 6, 1274 [51].**

Determination of Scintillation Efficiency and Photometric Characteristics of X-Ray Phosphors from Results of Emission-Power Measurements. *L. P. Gal'chinetskii, K. A. Katrunov, and V. D. Ryzhikov.* **1991, No. 1, 81 [88].**

Study of Contrast and Space Resolution of Scintillator Array. *A. G. Volkovich, V. I. Liksonov, S. V. Smirnov, V. E. Stepanov, D. V. Filippov, L. I. Uratskoev, and A. V. Chesnokov.* **1991, No. 2, 321 [85].**

Optimization of Light Yield of Scintillator for Position-Sensitive Gamma Detector. *A. G. Volkovich, V. I. Liksonov, D. A. Lobanovskii, S. V. Smirnov, V. E. Stepanov, A. S. Tyurin, L. I. Urutskoev, D. V. Filippov, and A. V. Chesnokov.* **1991, No. 2, 325 [88].**

Shock-Absorbing Elements for Scintillation Detectors. *L. A. Andryushchenko, B. V. Grinev, and V. L. Yankelevich.* **1991, No. 3, 543 [63].**

3.4.2. Cerenkov detectors

Supplying 58AVP Photomultipliers in Spectrometric Channels of Cerenkov Counters. *D. Kollar, L. Kollarova, and M. F. Shabashov.* **1977, No. 1, 57 [53].**

Calculation of Physical Characteristics of Cerenkov Scintillation γ Telescope by the Method of Statistical Testing. *N. A. Gun'ko, Yu. A. Gur'yan, and É. A. Tropp.* **1979, No. 5, 1268 [75].**

Time Resolution of Pulsed Cerenkov γ Detectors. *G. D. Belousov, V. L. Buryakov, and O. V. Kozlov.* **1980, No. 1, 74 [77].**

Possibility of Using Fiber Light Guides as a Radiator of Cerenkov Radiation. *E. V. Repenko and O. I. Stukov.* **1980, No. 3, 617 [72].**

Sensitivity of the FÉU-49 Photomultiplier to Cerenkov Radiation. *V. L. Dadykin and A. L. Tsyabuk.* **1980, No. 6, 1359 [41].**

Detector of γ Quanta and Electrons of a 90-Channel Cerenkov Mass Spectrometer. *R. G. Astvatsaturov, V. A. Kramarenko, A. I. Malakhov, G. L. Melkumov, and M. N. Khachaturyan.* **1981, No. 2, 358 [67].**

Wide-Aperture Gas-Filled Cerenkov Threshold Counter. *G. S. Bitsadze, A. M. Blik, Yu. A. Budagov, V. B. Vinogradov, A. O. Volod'ko, V. Glinka, A. B. Iordanov, A. S. Kurilin, V. M. Kut'in, Yu. F. Lomakin, N. A. Rusakovich, S. V. Sergeev, A. S. Solov'ev, N. S. Tolstoi, A. A. Feshchenko, V. B. Flyagin, R. V. Tsenov, and R. Yanik.* **1982, No. 3, 569 [56].**

Deep-Sea Cerenkov Detector for Cosmic-Ray Muons. *N. V. Vladimirskii, G. D. Davimus, E. E. Zhuravlev, V. P. Pustovetov, Yu. A. Trubkin, and V. M. Fedorov.* **1983, No. 2, 287 [43].**

Thin Cerenkov Counter for Charge Measurement. *A. U. Makhsudov, V. M. Myalkovskii, and T. S. Yuldashbaev.* **1983, No. 3, 551 [54].**

Wide-Aperture Gas-Filled Cerenkov Counter with Spectrum-Shifting Capability. *O. E. Gorchakov, V. V. Karpukhin, A. V. Kulikov, V. I. Sidorova, and S. V. Trusov.* **1984, No. 1, 77 [77].**

Cerenkov Counter with Radiation Emitter Consisting of an Aqueous Solution of γ-Amino Acid. *A. V. Kuptsov, V. P. Kurochkin, L. Luchan, and L. L. Nemenov.* **1984, No. 1, 80 [79].**

Recording of Cerenkov Radiation by a Wire Chamber Operating in the Self-Quenched Streamer Mode. *A. F. Buzulutskov, V. G. Vasil'chenko, V. Yu. Vashchenko, V. K. Myalitsin, A. I. Ronzhin, and L. K. Turchanovich.* **1985, No. 3, 573 [68].**

14-channel Threshold Gas Cerenkov Counter. *M. N. Voichishin, B. N. Gus'kov, E. G. Devitsin, M. V. Zavertyaev, A. I. Zinchenko, M. N. Kapishin, V. A. Kozlov, V. V. Pavlovskaya, V. D. Cholakov, and E. A. Chudakov.* **1985, No. 3, 577 [71].**

Multichannel Threshold Gas Cerenkov Counter. *B. N. Gus'kov, E. G. Devitsin, M. V. Zavertyaev, A. I. Zinchenko, M. N. Kapishin, V. A. Kozlov, A. L. Lyubimov, V. V. Pavlovskaya, V. D. Cholakov, and E. A. Chudakov.* **1985, No. 5, 1039 [49].**

Identification of Deuterons and Antideuterons in Separated Beams with a Liquid Cerenkov Counter. *A. A. Ivanov, V. I. Kotov, B. V. Prosin, Yu. A. Samorodov, V. I. Solyanik, N. A. Chereshkov, Yu. N. Chernetskii, and S. A. Chernyi.* **1985, No. 6, 1288 [50].**

Eight-Channel Gas Cerenkov Counter. *G. S. Bitsadze, A. M. Blik, Yu. A. Budagov, V. B. Vinogradov, A. B. Iordanov, Yu. A. Kul'chitskii, L. B. Litov, Yu. F. Lomakin, S. V. Sergeev, A. S. Solov'ev, Yu. N. Kharzheev, and R. V. Tsenov.* **1986, No. 3, 596 [81].**

Large-Area Gas Cerenkov Counter for Cosmic-Ray Studies. *A. I. Benenson, L. V. Kurnosova, M. A. Rusakovich, N. P. Topchiev, and M. I. Fradkin.* **1986, No. 4, 805 [45].**

Measurement of Coordinates of Cerenkov Photons in Wire Chamber Operating in High-Current Mode. *A. F. Buzulutskov, V. G. Vasil'chenko, and L. K. Turchanovich.* **1986, No. 4, 808 [48].**

Eight-Channel Threshold Cerenkov Counter with Air Radiator. *E. G. Devitsin, M. V. Zavertyaev, V. A. Kozlov, and V. V. Pavlovskaya.* **1987, No. 2, 281 [37].**

Improvement of Accuracy of Coordinate Determination in Lead-Glass Detector Containing Active Converter. *A. M. Blik, V. N. Kolosov, V. I. Romanovskii, and A. S. Solov'ev.* **1987, No. 2, 285 [41].**

Particle-Direction Detector. *S. A. Voronov, M. V. Guzenko, and A. A. Moiseev.* **1989, No. 2, 336 [75].**

Combined Cerenkov Device for Measurement of Average Proton Energy in the Region of ~660 MeV. *V. P. Zrelov, E. S. Kuz'min, V. P. Lupil'tsev, and J. Ruzicka.* **1990, No. 1, 57 [72].**

3.4.3. Electroluminescent detectors

Gas Detectors with Detection of Discharge Luminescence (Review). *V. A. Monich.* **1980, No. 5, 1061 [7].**

Construction and Characteristics of a Gas-Filled Electroluminescent Detector for Soft X-Rays. *D. A. Goganov, N. I. Komyak, V. B. El'kind, and A. A. Shul'ts.* **1978, No. 4, 912 [72].**

Light Yield of a Proportional Scintillation Counter at Low Pressures of the Filling Gas. *Yu. E. Makovskii, V. I. Popov, I. V. Filyushkin, and A. S. Yakovlev.* **1979, No. 6, 1531 [50].**

Electroluminescence Emission Chamber with Condensed Xenon as Working Material. *A. I. Bolozdynya, V. V. Egorov. S. D. Kalashnikov, V. L. Krivoshein, V. P. Miroshnichenko, and B. U. Rodionov.* **1985, No. 4, 778 [43].**

Active-Protection Scintillation Detector. *S. E. Belenko, A. L. Vasil'ev, A. S. Glyanenko, A. I. Grigor'ev, O. A. Gunder, Yu. D. Kotov, S. A. Malinovskaya, O. N. Romanov, and V. T. Samoilenko.* **1986, No. 1, 43 [43].**

Gas Electroluminescent Proportional Detector with Photocathode in Working Chamber. *P. A. Bagryanskii, V. S. Belkin, V. G. Dudnikov, and E. I. Shabalov.* **1987, No. 1, 51 [49].**

Registration of Ionization Clusters by Electroluminescent Drift Chamber. *A. D. Volkov, V. M. Grebenyuk, B. Zh. Zalikhanov, E. V. Komissarov, V. Z. Serdyuk, V. V. Sidorkin, P. S. Filimonon, and J. Jani.* **1987, No. 3, 531 [38].**

Use of Electroluminescence of Gas Mixtures for Optical Data Acquisition from Wire Chambers. *V. A. Polyakov, V. I. Rykalin, and E. G. Tskhadadze.* **1988, No. 1, 33 [34].**

Position-Sensitive Compressed-Xenon Electroluminescent Gamma Detector. *V. V. Egorov.* **1988, No. 1, 53 [50].**

Study of Position-Sensitive Electroluminescent Gamma Detector. *V. V. Egorov and S. F. Savchenko.* **1990, No. 1, 76 [86].**

3.5. Vacuum detectors (photomultipliers, hodoscope photomultipliers, microchannel plates, conversion-electron multipliers, secondary multipliers)

Coordinate-Sensitive Detectors Based on Multichannel Plates (Review). *M. A. Gruntman.* **1984, No. 1, 1 [14].**

Investigation of the Sensitivity of Photomultipliers to Gamma Quanta. *O. V. Kozlov and I. M. Egelev.* **1977, No. 1, 61 [56].**

Microchannel-Plate Timing Detector. *V. I. Dukhanov, A. A. Kurashov, I. B. Mazurov, and I. N. Serikov.* **1979, No. 5, 1274 [80].**

Hodoscope Photomultiplier Operated as a Signal Accumulator. *V. G. Vasil'chenko, N. K. Vishnevskii, V. G. Lapshin, N. S. Mel'nikov, E. A. Monich, V. I. Rykalin, V. K. Semenov, and V. N. Peleshko.* **1980, No. 4, 863 [54].**

Detector of Controlled Secondary Electron Emission with MgO as Working Medium. *A. N. Arvanov, A. G. Akhperdzhanyan, V. G. Gavalyan, R. L. Kavalov, M. P. Lorikyan, Yu. L. Margaryan, and G. G. Petrosyan.* **1981, No. 4, 887 [58].**

New Alpha-Particle Detector Based on Microchannel Plates. *E. A. Frolov, A. A. Konstantinov, and M. F. Yudin.* **1983, No. 4, 813 [67].**

Response of Channel-Type Electron Multipliers in the Counting Mode. *O. A. Belyaevskii, I. L. Gladyshev, Yu. S. Korobochko, and V. N. Mineev.* **1983, No. 4, 814 [68].**

Flight-Time Detector with KBr as the Sensitive Substance. *A. N. Arvanov, V. G. Gavalyan, and M. P. Lorikyan.* **1983, No. 4, 817 [70].**

Large-Entry-Window Detector Consisting of a Microchannel Plate and a Channel-Type Electron Multiplier. *O. A. Belyaevskii, I. L. Gladyshev, Yu. S. Korobochko, and V. I. Mineev.* **1983, No. 5, 1028 [34].**

Investigation of the Mechanism with which Output Pulses in Photomultipliers are Formed by Gamma Quanta of Various Energies. *O. M. Anshakov, B. V. Nalibotskii, A. N. Pertsev, A. L. Kholmetskii, and V. A. Chudakov.* **1983, No. 5, 1042 [44].**

Coordinate-Sensitive Detector on the Basis of Microchannel Plates. *M. R. Ainbund, L. S. Gorn, M. A. Gruntman, D. S. Zakharov, A. A. Klimashov, V. B. Leonas, I. P. Maslenkov, and B. I. Khazanov.* **1984, No. 1, 68 [70].**

Time Coordinate Detector with a Porous Dielectric Emitter. *R. L. Kavalov, S. M. Luk'yanov, Yu. L. Margaryan, Yu. É. Penionzhkevich, S. G. Gasparyan, and G. G. Chubaryan.* **1984, No. 3, 562 [46].**

Multiwire Emission Detector. *V. G. Gavalyan, M. P. Lorikyan, A. N. Arvanov, and S. M. Gukasyan.* **1984, No. 4, 861 [72].**

Multiwire Dielectric Detector. *M. P. Lorikyan, K. Zh. Margaryan, Yu. E. Narinyan, and V. G. Tarlamazyan.* **1984, No. 5, 1093 [45].**

Particle Detector with Three Microchannel Wafers. *I. V. Gribov, S. V. Gubin, E. V. Lazutin, N. M. Persiantseva, and A. V. Shumakov.* **1985, No. 3, 564 [59].**

NaI(Tl) Scintillation Counter with Vacuum Photodiode. *I. Yu. Red'ko, S. I. Serednyakov, V. A. Aksenov, G. M. Kazakevich, and L. A. Kuznetsova.* **1986, No. 2, 346 [76].**

Electron Detector for Mössbauer Spectroscopy Based on Microchannel Plates. *A. P. Amulyavichyus and R. Yu. Davidonis.* **1986, No. 3, 590 [76].**

Photoelectric Detector of Mössbauer Gamma Radiation. *R. M. Mirzababaev.* **1986, No. 4, 830 [69].**

A Method of Detecting Radiations in Instruments Based on Microchannel Plates. *V. V. Ammosov, A. I. Bolozdynya, M. A. Kubantsev, V. N. Lebedenko, and A. L. Suvorov.* **1986, No. 6, 1304 [62].**

Gamma-Radiation Registration Efficiency of Herringbone Assembly of Microchannel Plates. *A. L. Shilov, L. S. Ershov, V. N. Ivanov, A. V. Il'chenko, L. Ya. Morgovskii, and A. M. Tyutikov.* **1987, No. 3, 538 [43].**

Position-Sensitive Time-Mark Detector Employing Microchannel Plates. *S. L. Podshibyakin, Yu. V. Pyatkov, A. I. Slyusarenko, and A. N. Shemetov.* **1988, No. 6, 1444 [67].**

Dual Hodoscopes Using Hodoscopic Photomultipliers and Cassettes of Optical-Fiber Scintillators. *A. M. Gorin, A. A. Zaichenko, V. N. Evdokimov, V. I. Kryshkin, A. I. Ronzhin, and S. L. Chermnykh.* **1989, No. 4, 788 [53].**

Characteristics of Hodoscopic Photomultipliers for Cerenkov Spectrometers. *A. A. Volkov, A. O. Efimov, V. N. Evdokimov, A. I. Ronzhin, and V. I. Rykalin.* **1989, No. 5, 1078 [96].**

Ion Detector Based on Microchannel Plates for High-Sensitivity Mass Spectrometer. *A. M. Rodin, S. I. Sidorchuk, and V. A. Timakov.* **1990, No. 2, 317 [80].**

3.6. Neutron detectors

Edge Effect in Gas Counters of Slow Neutrons. *E. A. Frolov and I. A. Kharitonov.* **1977, No. 2, 392 [56].**

Efficiency of a Neutron Scintillation Detector at Energies to 220 MeV. *P. I. Galumyan and R. Kh. Markaryan.* **1977, No. 4, 999 [70].**

Calculating the Spectral Characteristics of Thin Cylindrical Scintillators for Fast Neutron Spectrometry. *E. M. Burymov, S. V. Lovtsov, and I. V. Teplov.* **1978, No. 2, 320 [51].**

Scintillation Detector for Measuring the Transit Time and Interaction Coordinates of Neutrons. *S. A. Bunyatov, B. Zh. Zalikhanov, V. S. Kurbatov, and A. Khalbaev.* **1978, No. 2, 323 [54].**

Large Low-Background Slow-Proton Detectors. *A. I. Afonin, Yu. A. Mostovoi, A. I. Frank, and O. V. Khakhan.* **1978, No. 3, 626 [71].**

Detector for High-Intensity Neutron Fluxes Based on Gas Scintillators with Selective Level Population. *E. M. Gorodkov, A. B. Dmitriev, V. S. Il'yashenko, A. I. Kirillov, A. I. Mis'kevich, B. S. Salamakha, V. A. Solov'ev, and M. G. Shirokov.* **1978, No. 5, 1234 [74].**

Registration of Intense Fluxes with the Aid of Quartz Resonators. *A. A. Greshilov, A. D. Lipunov, and V. V. Pokrovskii.* **1978, No. 5, 1236 [75].**

Calibration of the Threshold of a Neutron Scintillation Counter. *V. I. Noga, Yu. N. Ranyuk, and Yu. N. Telegin.* **1978, No. 6, 1489 [32].**

Use of the Reaction $^{10}B(n, \alpha)^{7}Li$ to Determine the Distribution of Boron Implanted in Silicon. *J. Bogancs, J. Gyulai, A. Hagy, V. M. Nazarov, Z. Seres, and A. Szabo.* **1979, No. 1, 59 [58].**

An Efficient Neutron Detector Containing ^{3}He for Transit-Time Spectrometry. *V. N. Bogomolov, I. I. Zakharkin, V. A. Kuznetsov, and O. I. Shchetinin.* **1979, No. 2, 370 [75].**

Neutron Detectors with Nanosecond Time Resolution. *V. N. Kononov, E. D. Poletaev, L. E. Kazakov, and M. V. Bokhovko.* **1979, No. 3, 696 [77].**

High-Efficiency Ion-Implanted Semiconductor Counter for Neutrons. *I. G. Gverdtsiteli, A. I. Guldamashvili, V. D. Zhirnov, T. M. Agrba, and T. A. Shaumyan.* **1979, No. 3, 700 [81].**

Scintillation Neutron Detector with an Electronic Device for Rapidly Changing the Multiplication Factor of a PM. *S. L. Bogolyubskii, V. V. Vasilevskil, V. I. Liksonov, and V. P. Smirnov.* **1979, No. 3, 788 [163].**

Using a Laser Generator of Neutrons in Investigations and Calibrations of Detectors for Pulsed Neutron Fluxes. *M. V. Kirillov-Ugryumov, K. I. Kozlovskii, V. K. Lyapidevskii, V. A. Prorvich, and A. S. Tsybin.* **1981, No. 2, 362 [71].**

An α Detector for Studying the (n, α) Reaction in Pulsed Neutron Sources. *A. Antonov, A. A. Bogdzel', Yu. M. Gledenov, S. Marinova, Yu. P. Popov, and V. G. Tishin.* **1981, No. 3, 614 [52].**

Gas-Filled Optical Neutron Detector. *A. B. Dmitriev, V. S. Il'yashenko, A. I. Mis'kevich, B. S. Salamakha, and V. N. Sarylov.* **1981, No. 4, 880 [51].**

Effect of Vertical Dimension of Helium Slow-Neutron Counter on the Efficiency of Neutron Powder-Crystal Diffraction Apparatus. *A. Yu. Astapkovich, E. N. Kozlov, and S. E. Tsirkunova.* **1981, No. 4, 885 [56].**

Composite Neutron Recording Systems. *I. M. Kozlov, O. P. Nikotin, and A. S. Chekrenev.* **1982, No. 4, 821 [39].**

Single-Coordinate Position-Sensitive Neutron Detector with Digital Processor. *V. I. Gordelii, Yu. B. Zasadych, M. Z. Ishmukhametov, V. I. Lazin, and V. E. Novozhilov.* **1982, No. 4, 825 [42].**

Efficiency of Recording Thermal Neutrons with Semiconductor Detectors Having Planar Convertors. *N. O. Elyutin, V. K. Lyapidevskii, A. O. Nikitin, and B. G. Perezhogin.* **1982, No. 5, 1107 [62].**

Detector with a Hydrogen-Containing Scatterer. *Yu. P. Bakulin and S. V. Chuklyaev.* **1983, No. 4, 824 [77].**

Influence of the Thickness of the Inversion Layer and the ^{10}B Atom Distribution in the Layer upon the Characteristics of Ion-Doped Semiconductor Counters of Neutrons. *E. M. Diasamidze, Yu. A. Solov'ev, and A. N. Shmakov.* **1984, No. 2, 292 [36].**

Investigations of the Parameters of a Monitor with a Highly Sensitive Neutron-Activation Detector with the Aid of a Laser-Operated Neutron Tube. *N. N. Beglyakov, D. F. Bespalov, I. I. Vergun, A. A. Dylyuk, R. P. Pleshakova, A. E. Shikanov, M. V. Kirillov-Ugryumov, and G. V. Bogatyrev.* **1984, No. 3, 538 [27].**

High-Efficiency Semiconductor Thermal-Neutron Detector. *S. A. Azimov, F. G. Mullagalieva, N. M. Sheina, and A. Ya. Yafasov.* **1985, No. 4, 782 [46].**

Determination of Hydrogen-Isotope Distribution in Materials Using 14.5-MeV Neutrons. *B. G. Skorodumov.* **1985, No. 5, 1056 [63].**

High-Efficiency Thermal-Neutron Registration Channel. *F. G. Kulidzhanov, Yu. S. Zasadych, S. N. Nizovoi, and N. O. Elyutin.* **1986, No. 2, 336 [68].**

Thermal-Neutron Detector. *D. F. Bespalov, A. A. Dylyuk, and L. N. Ivanov.* **1986, No. 5, 1035 [48].**

Position-Sensitive Neutron Detector Based on a Scintillator and a Device with Charge Coupling. *P. N. Chernyshov, A. A. Sumbatyan, V. Ya. Kezerashvili, S. P. Gaevoi, V. M. Gataulin, and V. A. Trunov.* **1986, No. 6, 1297 [56].**

3.7. Transition-radiation detectors

Dual Proportional Counter for Recording Transition Radiation. *A. A. Gusev, N. I. Nazarova, G. I. Pugacheva, and A. F. Titenkov.* **1979, No. 2, 367 [72].**

Detector of Transition Radiation. *R. A. Astabatyan, K. R. Grigoryan, M. P. Lorikyan, and K. Zh. Markaryan.* **1980, No. 2, 368 [75].**

Wide-Aperture Transition Radiation Detector for Separating Electrons from Hadrons. *Yu. M. Antipov, I. V. Kotov, P. P. Kostromin, R. N. Krasnokutskii, S. N. Maiburov, S. A. Medved', Yu. M. Pishchal'nikov, S. A. Polovnikov, and R. S. Shuvalov.* **1984, No. 1, 73 [74].**

4.5-m^2 Proportional Chamber for X-Ray Detectors. *A. T. Avundzhyan, A. A. Bagdasaryan, L. S. Bagdasaryan, Z. K. Balayan, O. M. Vinnitskii, S. A. Kankanyan, A. G. Oganesyan, and A. G. Tamanyan.* **1987, No. 5, 1074 [56].**

3.8. Low-background detectors

Large Low-Background Slow-Proton Detectors. *A. I. Afonin, Yu. A. Mostovoi, A. I. Frank, and O. V. Khakhan.* **1978, No. 3, 626 [71].**

Simultaneous Measurement of the Activity of ^{37}Ar and ^{39}Ar. *A. V. Fisenko.* **1978, No. 5, 1240 [79].**

Geiger and Proportional Counter Backgrounds Determined by Hard Cosmic Radiation. *R. J. Krupa.* **1979, No. 3, 688 [70].**

Background Count Rate in an Alpha Radiometer Employing Surface-Barrier Au(Si) Detectors. *A. A. Petushkov and V. A. Manchuk.* **1979, No. 5, 1276 [82].**

Low-Background Proportional Resonance Counter for Mössbauer Studies. *N. S. Medvedeva, V. N. Somov, L. A. Korytko, A. N. Tolstikov, E. K. Toshchakov, and V. A. Sozinov.* **1981, No. 1, 49 [50].**

Protective Shielding Chambers for Reducing the External Radiation Background. *V. A. Alekseev, O. P. Sobornov, and I. V. Smirnov.* **1981, No. 1, 67 [66].**

Role of Edge "Dead" Zones in the Formation of a Low-Energy Background of Germanium Radiation Detectors. *V. V. Shestakov.* **1981, No. 4, 893 [64].**

Background of Gas-Filled Counters with Silicon Cathodes. *A. V. Fisenko, L. L. Kashkarov, and A. A. Pomanskii.* **1982, No. 2, 318 [38].**

Active Cooling of Semiconductor Detectors Designed to Detect Charged Particles in Outer Space. *T. Ys. Belousova, N. A. Vlasova, M. I. Panasyuk, S. A. Filippychev, A. G. Myasnikov, É. N. Sosnovets, L. M. Gladkikh, É. A. Izupak, and E. K. Iordanovshili.* **1983, No. 4, 976 [211].**

Zenit-100 Low-Background Apparatus for Measuring Space Distribution of Beta Activity. *S. P. Avdeev, V. A. Karnaukhov, V. D. Kuznetsov, G. V. Myshinskii, V. V. Popov, and L. A. Petrov.* **1985, No. 5, 1017 [32].**

Selection of Cathode Metal for Low-Background Gas Counter. *A. D. Zorin, V. V. Glazov, V. M. Glazov, I. A. Feshchenko, K. N. Klimov, V. A. Umilin, V. K. Vanchagova, and I. A. Korshunov.* **1986, No. 5, 1032 [46].**

3.9. Acoustic superconducting detectors

Superconducting Ionizing-Radiation Detectors (Review). *V. K. Lyapidevskii and V. B. Perezhogin.* **1990, No. 2, 251 [24].**

Position-Sensitive Superconducting Radiation Detector. *A. F. Vasilevich, N. A. Klyachin, V. K. Lyapidevskii, and V. B. Perezhogin.* **1979, No. 2, 376 [81].**

Noise-Immune Common-Mode Piezoelectric Detector of Acoustic Radiation Generated by Pulsed Charged-Particle Beams. *V. L. Burlikov, V. K. Zhukov, V. N. Zabaev, A. V. Kargapol'tsev, and V. I. Simanchuk.* **1989, No. 5, 1044 [67].**

Acoustic-Emission Method for Determination of Energy of Heavy Charged Particles. *M. D. Bavizhev, V. L. Burlikov, S. A. Vorob'ev, A. V. Kargapol'tsev, and V. I. Simanchuk.* **1991, No. 4, 784 [47].**

3.10. Dosimeters, radiometers

Thermoluminescent LiF Detectors (Survey). *K. M. Kudelin.* **1979, No. 3, 630 [21].**

CdS + Cu Dosimeter for Measuring Gamma Radiation, Having High Radiation Resistance. *A. P. Galushka, V. T. Mak, and Yu. I. Zaslavskii.* **1977, No. 1, 68 [62].**

Measuring Gamma-Radiation Dose Rate by Means of a Silicon Detector with a p–i–n Junction in the Pulse-Count Mode. *V. S. Gorev, V. A. Kozhemyakin, and M. D. Firsov.* **1977, No. 2, 394 [58].**

Hardness Dependence of Thermoluminescent Glass Dosimeters for Photons with Energy up to 6 MeV. *A. L. Barinov, I. A. Bochvar, T. I. Gimadova, I. B. Keirim-Markus, Yu. V. Orlov, and M. V. Razumovskii.* **1978, No. 4, 916 [75].**

Downward Drift of Readings of IKS Dosimeters Stored after Irradiation. *I. A. Bochvar, T. I. Gimadova, and N. N. Keirim-Markus.* **1978, No. 6, 1491 [34].**

Simple Circuit for a Meter of the Integral Radiation Dose of an Accelerator. *V. A. Zapevalov and P. I. Reingardt-Nikulin.* **1979, No. 6, 1537 [55].**

Error Estimate in Measuring Dose Power of Terrigenous Gamma Radiation. *É. M. Krisyuk, N. D. Vol'zhonok, I. V. Chubinskii-Nadezhdin, and V. I. Parkhomenko.* **1980, No. 3, 618 [74].**

Dosimetric Devices Based on Photocell Diodes and Luminophors. *Yu. A. Kuznetsov and A. V. Sidorenko.* **1980, No. 4, 872 [62].**

Instrument for Measuring the Deexcitation of Thermoluminescence Dosimeters. *B. S. Prister and G. P. Shein.* **1980, No. 6, 1352 [35].**

Possible Use of $BaSO_4$(Eu) as a Detector in Thermoluminescence Dosimeters. *I. A. Bochvar and M. I. Tombak.* **1980, No. 6, 1354 [37].**

Using Cadmium Telluride Detectors in γ-Radiation Dosimetry. *V. S. Gorev, V. A. Kozhemyakin, O. A. Matveev, D. Firsov, A. Kh. Khusainov, and G. I. Shul'govich.* **1981, No. 1, 60 [60].**

Correcting the γ-Energy Equivalent of Independent α-Reference Sources. *A. Ya. Sinitsyn and R. M. Gabitov.* **1981, No. 1, 65 [64].**

Dosimetric Characteristics of LiF Thermoluminescence Detectors Made with the Technique of Recrystallization Compression Molding in Vacuum. *A. V. Oborin, V. I. Fominykh, F. K. Volynets, and V. A. Demidenko.* **1981, No. 2, 368 [76].**

Radiometric Errors in Radioactivity Determination. *V. Z. Khait.* **1982, No. 2, 332 [50].**

A Heat-Treatment Device for Thermoluminescent Dosimeter Detectors. *V. G. Erkin, V. I. Kovalenko, and O. V. Lebedev.* **1982, No. 3, 755 [212].**

Instrument for Measuring the Exposure Dose Rate of Intense Pulsed X-Rays and Gamma Radiation. *V. I. Antonov, O. F. Gerasimov, A. A. Doinikov, E. A. Nikolaev, N. N. Morozov, Yu. N. Tarasenko, and B. M. Stepanov.* **1983, No. 5, 1061 [58].**

A Photodosimeter of Accelerated Protons. *V. I. Kostyuchenko, S. P. Lisovets, L. Ya. Kaplun, and E. A. Gruz.* **1984, No. 2, 275 [23].**

Comparative Dosimetric Characteristics of Some Types of Lithium Fluoride Thermoluminescence Detectors. *G. Ya. Kaskanov, and M. M. Komochkov.* **1984, No. 4, 864 [74].**

Calorimetric Calibration of Pyroelectric Gamma-Radiation Detectors. *R. Ya. Strakovskaya and A. G. Stas'.* **1985, No. 1, 45 [48].**

Convergence of Thermoluminescence Detectors. *V. V. Ryzhukhinskii and A. D. Sokolov.* **1985, No. 3, 569 [64].**

Device for Continuous Measurement of ^3H and ^{14}C Concentrations in Solutions. *Yu. I. Grishin. A. M. Lyutsko, and V. A. Sasunkevich.* **1985, No. 3, 592 [84].**

Multilayer Detector for Measuring Absorbed Dose in Skin. *D. P. Osanov, V. P. Panova, and A. I. Shaks.* **1985, No. 3, 594 [86].**

Zenit-100 Low-Background Apparatus for Measuring Space Distribution of Beta Activity. *S. P. Avdeev, V. A. Karnaukhov, V. D. Kuznetsov, G. V. Myshinskii, V. V. Popov, and L. A. Petrov.* **1985, No. 5, 1017 [32].**

Measurement of Absolute Activity of Thin-Layer Beta Sources with Two-Chamber 4π Counter. *A. S. Kamenev.* **1986, No. 3, 600 [84].**

Cell for Determination of Tritium Concentration by Liquid Radiometer. *G. I. Antonenko, V. I. Savina, and T. B. Egurneva.* **1986, No. 4, 943 [170].**

Sensitometric Characteristics of UF-4, UF-5, and UFSh-0 Films in the Quantum-Energy Range of 5-30 keV. *I. M. Datsko, M. A. Slabkovskaya, A. S. Sokolov, N. V. Uvarova, and M. A. Sheromov.* **1987, No. 2, 287 [43].**

Effect of Diaphragm on Optical Interaction of Two Photomultipliers in Chamber of Liquid Radiometer. *G. I. Antonenko, V. I. Savina, and S. A. Gromykhalov.* **1989, No. 2, 348 [85].**

Pulsed X-Ray Fluorometer with Nanosecond Resolution. *S. V. Anishchik, V. M. Grigoryants, I. V. Shebolaev, Yu. D. Chernousov, O. A. Anisimov, and Yu. N. Molin.* **1989, No. 4, 813 [74].**

Combination Detector for Intensitometer. *V. D. Ryzhikov, V. P. Sokhin, E. F. Kvyatkovskaya, and V. D. Fursenko.* **1989, No. 4, 816 [76].**

Heterogeneous Ionization Chambers for Dosimetry of Composite Fields of Fast Neutrons and Gamma Radiation. *V. A. Lisin and A. I. Gorbatenko.* **1989, No. 6, 1311 [71].**

Combined Solid-State Detector for Radiometry. *V. D. Ryzhikov, V. P. Sokhin, and E. A. Danshin.* **1990, No. 6, 1294 [67].**

Use of Scintillator–Photodiode Detector in Counting Mode in Dosimetry. *E. A. Danshin, L. A. Piven', V. D. Ryzhikov, and E. M. Selegenev.* **1991, No. 4, 807 [65].**

3.11. Position-sensitive detectors

Nonfilm Television Method of Measuring Coordinates of High-Speed Processes (Survey). *A. V. Petrakov.* **1977, No. 1, 1 [7].**

Position-Sensitive Detectors of Low-Energy Gamma Quanta (Review). *V. Yu. Chepel'.* **1990, No. 3, 497 [25].**

Position-Sensitive Ionization Fission Chamber. *V. S. Gal'tsov, I. I. Zakharkin, V. A. Kuznetsov, and O. I. Shchetinin.* **1978, No. 1, 30 [31].**

Coordinate Detectors Based on Liquid Scintillators. *B. Yu. Baldin, L. S. Vertogradov, Z. V. Krumshtein, M. A. Musin, V. I. Petrukhin, A. I. Ronzhin, S. L. Smirnova, and I. Shyuler.* **1978, No. 3, 633 [78].**

Analog Meter for the Ratio of the Signals from Position-Sensitive Semiconductor Detectors. *Yu. S. Volodyagin, A. A. Korotkii, and V. N. Kudryavtsev.* **1978, No. 4, 899 [62].**

Detectors Sensitive to the Point of Incidence and Produced by the Ion-Implantation Method. *V. G. Vinogradova, N. V. Eremin, and I. V. Kozei.* **1978, No. 5, 1203 [47].**

Position-Sensitive Proportional Counter for Neutrons. *V. S. Gal'tsov, I. I. Zakharkin, V. A. Kuznetsov, and O. I. Shchetinin.* **1979, No. 2, 374 [78].**

Effective Speed of Propagation of a Light Signal in a Position-Sensitive Scintillation Counter. *V. G. Bondarenko, V. A. Grigor'ev, and V. A. Kaplin.* **1979, No. 3, 694 [75].**

Mosaic Semiconductor Detectors for Nuclear Radiation. *B. A. Nikitin, O. V. Zakharchuk, A. P. Konovalov, A. V. Sliva, and O. P. Fedoseeva.* **1979, No. 3, 703 [83].**

Use of the SnO_2–Si Heterotransition in Design of Position-Sensitive Structures. *I. I. Evseev, V. V. Kryachko, L. N. Sukhotin, and A. I. Stukalov.* **1979, No. 4, 982 [97].**

System Consisting of Two-Coordinate Cylindrical Proportional Chambers with a Resistive Cathode. *V. B. Golubev, A. N. Peryshkin, I. Yu. Red'ko, and S. I. Serednyakov.* **1981, No. 6, 1373 [40].**

Avalanche Position-Sensitive Detector with Resistive Cathode. *A. G. Donichkin and O. E. Shigaev.* **1982, No. 2, 315 [36].**

Position-Sensitive Liquid-Xenon Detector for γ Rays. *E. M. Gushchin, A. A. Kruglov, I. M. Obodovskii, S. G. Pokachalov, and V. A. Shilov.* **1982, No. 3, 561 [49].**

Single-Coordinate Position-Sensitive Neutron Detector with Digital Processor. *V. I. Gordelii, Yu. B. Zasadych, M. Z. Ishmukhametov, V. I. Lazin, and V. E. Novozhilov.* **1982, No. 4, 825 [42].**

Two-Coordinate Scintillation Hodoscope on the Basis of Hodoscope Photomultipliers. *N. K. Vishnevskii, A. I. Ronzhin, V. K. Semnov, and B. A. Khachaturov.* **1982, No. 4, 833 [49].**

Using Scintillation Hodoscopes with Hodoscope Photomultipliers in Particle-Momentum Measurements and in Fast Sampling. *A. N. Vasil'ev, N. K. Vishnevskii, Yu. A. Matulenko, E. A. Monich, S. B. Nurushev, A. I. Ronzhin, V. I. Rykalin, V. K, Semenov, and B. A. Khachaturov.* **1982, No. 4, 836 [52].**

Calculation of the Spatial Resolution of Scintillation Hodoscopes Built on the Basis of Hodoscope Photomultipliers at Various Types of Time Matching. *V. G. Vasil'chenko, V. G. Lapshin, E. A. Monich, A. I. Ronzhin, and V. I. Rykalin.* **1982, No. 5, 1102 [58].**

Method of Determining the Thickness of Nuclear Photoemulsions in Autoradiography. *V. D. Rusov, M. Yu. Semenov, and V. A. Barsuk.* **1982, No. 6, 1357 [42].**

A Two-Coordinate Position-Sensitive Detector with Video Display of the Information. *V. A. Rezvov, I. N. Serikov, V. I. Sklyarenko, L. I. Yudin, and V. E. Yarosh.* **1984, No. 1, 219 [199].**

Instrument for Measuring the Spatial Distribution of Weak Currents of Ionizing Radiation. *R. A. Khaidarov, Sh. M. Mirzaev, and O. R. Ochilov.* **1984, No. 3, 529 [20].**

Automatic System for Changing and Monitoring Detector Position. *V. E. Apollonov, A. G. Donichkin, V. D. Dorofeev, and O. E. Shigaev.* **1985, No. 3, 536 [34].**

Magnetic Spectrometer Based on Multiwire Proportional Chambers. *A. M. Baranov, V. I. Baskakov, G. B. Bondarenko, P. S. Vasil'ev, I. L. Gavrilenko, B. A. Dolgoshein, V. P. Konovalov, S. P. Konovalov, A. M. Konstantinov, S. V. Murav'ev, V. K. Semenov, and A. P. Shmeleva.* **1985, No. 3, 543 [40].**

Radial Position-Sensitive Semiconductor Detector. *B. Amov, A. Dzhakov, B. P. Osipenko, E. Pentsya, and V. G. Sandukovskii.* **1985, No. 3, 561 [57].**

Factors Determining Space Resolution of Single-Coordinate Position-Sensitive Scintillation Detector. *S. P. Vershinina, L. I. Mitsai, V. S. Fedorovskii, and Yu. A. Tsirlin.* **1986, No. 1, 46 [46].**

Position-Sensitive Xenon Gamma-Quantum Detector. *N. G. Goleminov, B. V. Rodionov, and V. Yu. Chepel'.* **1986, No. 2, 325 [61].**

Two-Dimensional Automated X-Ray Detector for Diffraction Experiments. *Yu. S. Anisimov, Yu. V. Zanevskii, A. B. Ivanov, S. A. Movchan, V. D. Peshekhonov, Chan Dyk Tkhan', Chan Khyu Dao, G. A. Cheremukhina, and S. P. Chernenko.* **1986, No. 4, 821 [60].**

Scintillation Hodoscope with Working Area of 50 × 50 cm Based on Hodoscopic Photomultipliers. *V. V. Borog, V. G. Vasil'chenko, A. V. Demekhin, V. V. Dronov, and V. I. Rykalin.* **1987, No. 3, 542 [46].**

Hodoscope Module with Miniature Photomultipliers. *L. I. Bel'zer, A. M. Gribushin, L. Ya. Zhil'tsova, E. N. Matveeva, T. D. Pilipenko, and N. B. Sinev.* **1987, No. 3, 548 [50].**

One-Dimensional Position-Sensitive Detector for X-Ray Studies at Ultrahigh Pressures. *Yu. V. Zanevskii, S. A. Movchan, V. P. Peshekhonov, Chan Dyk Tkhan, I. V. Aleksandrov, A. N. Zisman, and S. M. Stishov.* **1987, No. 3, 551 [53].**

Position-Sensitive Compressed-Xenon Electroluminescent Gamma Detector. *V. V. Egorov.* **1988, No. 1, 53 [50].**

Miniature Multiwire Proportional Counter for ^{71}Ge and ^{37}Ar Registration. *I. R. Barabanov, V. N. Gavrin, L. P. Prokop'eva, and M. I. Samsonova.* **1988, No. 4, 845 [25].**

Use of Two-Dimensional Multiwire Detectors for Express Analysis of Labeled Compounds Applied to Flat Media. *D. A. Abdushukurov, Yu. S. Anisimov, Yu. V. Zanevskii, A. B. Ivanov, V. D. Peshekhonov, S. P. Chernenko, A. A. Chernyi, and G. A. Cheremukhina.* **1988, No. 4, 849 [28].**

Scintillation-Fiber Hodoscopes based on Hodoscopic Photomultipliers. *T. V. Alimova, V. G. Vasil'chenko, G. N. Vechkanov, A. M. Gorin, A. A. Zaichenko, V. E. Rakhmatov, A. I. Ronzhin, and V. I. Rykalin.* **1988, No. 6, 1420 [50].**

Position-Sensitive Time-Mark Detector Employing Microchannel Plates. *S. L. Podshibyakin, Yu. V. Pyatkov, A. I. Slyusarenko, and A. N. Shemetov.* **1988, No. 6, 1444 [67].**

Position-Sensitive Detector for Multichannel Beta Spectrometer. *A. A. Abdurazakov, A. A. Abdumalikov, Yu. S. Blinnikov, A. M. Nurmukhamedov, Sh. D. Paiziev, M. S. Khodzhaev, and A. Kh. Kholmatov.* **1990, No. 2, 293 [59].**

Position-Sensitive Gamma Spectrometer. *V. A. Arerev, V. P. Bugrov, N. I. Davidenko, Yu. M. Karpov, N. M. Kopylevich, A. I. Per'kov, S. N. Fedotov, and M. P. Sharak.* **1990, No. 3, 698 [196].**

Large-Format Wedge-and-Strip Collector for Coordinate-Sensitive Particle Detector. *M. A. Gruntman, I. I. Katsan, A. A. Kozochkina, S. N. Korneev, V. B. Leonas, and A. A. Petrov.* **1990, No. 4, 901 [169].**

Position-Sensitive Gamma-Quantum Detector for Positron Emission Tomograph. *A. A. Abramov, E. A. Alekseeva, S. F. Burachas, V. G. Vasil'chenko, V. I. Glotov, A. I. Gorelov, A. I. Klimov, V. N. Maiorov, A. V. Martynov, E. A. Meleshko, A. G. Morozov, I. V. Morozov, L. V. Myasoedov, S. V. Oleinik, V. D. Ryzhikov V. I. Rykalin, V. I. Selivanov, I. V. Sinitsyn, and V. D. Torokhov.* **1990, No. 5, 1054 [78].**

Charge-Coupled-Device-Based Position-Sensitive Soft-X-Ray and Alpha-Particle Detector. *S. E. Vasil'ev, Yu. V. Zanevskii, A. B. Ivanov, L. P. Smykov, and G. A. Cheremukhina.* **1991, No. 1, 70 [79].**

Scanning Position-Sensitive Detector. *K. M. Podurets, N. L. Mitrofanov, V. A. Somenkov, A. B. Tyugin, and S. Sh. Shil'shtein.* **1991, No. 3, 520 [45].**

Determination of Angular Directivity of Cosmic Waves by a Single Scintillation Counter. *A. N. Alent'ev.* **1991, No. 3, 540 [61].**

3.12. Multichannel detectors

Parallel Methods of Preliminary Data Processing in Multichannel Charged-Particle Detectors (Review). *N. M. Nikityuk.* **1991, No. 5, 995 [20].**

Instrument for Automatic Evaluation of Ionization Measurements Made with Multi-Layer Detectors. *G. L. Bashindzhagyan, V. V, Pronin, and N. B. Sinev.* **1977, No. 1, 65 [59].**

Scintillation Hodoscope with Small FÉU-87 Photomultipliers. *G. A. Saruev, N. A. Rybakova, N. K. Bulgakov, V. M. Kuznetsov, B. N. Kalinin, and V. V. Mameev.* **1977, No. 4, 971 [44].**

Photoelectric Polling of Multiwire Gas Counters. *G. D. Bogomolov, Yu. V. Dubrovskii, and V. D. Peskov.* **1978, No. 3, 639 [84].**

Scintillation Hodoscope for the Measurement of Ionization Losses of Relativistic Particles. *R. G. Astvatsaturov, V. I. Ivanov, V. A. Kramarenko, A. I. Malakhov, P. V. Moisenz, E. N. Matveeva, T. N. Pilipenko, A. E. Senner, and M. N. Khachaturyan.* **1979, No. 1, 53 [53].**

Multichannel, Wide-Aperture, Cerenkov Counter. *Yu. M. Antipov, V. A. Batarin, V. A. Bezzubov, N. P. Budanov, Yu. P. Gorin, S. P. Denisov, A. A. Lebedev, A. I. Petrukhin, S. A. Polovnikov, V. N. Roinishvili, and D. A. Stoyanova.* **1979, No. 4, 968 [84].**

Ion-Laser Method of Fabricating Position-Sensitive Detectors. *M. V. Kirillov-Ugryumov, R. A. Muminov, V. A. Prorvich, D. K. Khasanov, and A. Ya. Yafasov.* **1981, No. 4, 891 [61].**

Multichannel Detectors in a Monitoring System for a Focusing Two-Channel Spectrometer. *Yu. N. Vrazhnov and A. S. Dyshkant.* **1982, No. 1, 69 [67].**

Calibration of an Avalanche Hodoscope Detector through Decays of π^0 and η Mesons into Two Gamma Quanta. *S. A. Akimenko, A. V. Bannikov, V. I. Belousov, A. M. Blik, V. N. Kolosov, V. M. Kut'in, Z. V. Krumshtein, A. I. Palinov, and A. S. Solov'ev.* **1984, No. 1, 63 [66].**

Detector System for Measuring the Intensity of a Proton Beam in the Range of 10^6-$3 \cdot 10^{12}$ particles/sec. *A. S. Dyshkant and R. M. Sulyaev.* **1984, No. 3, 533 [23].**

Load Characteristics of Scintillation Hodoscopes Based on Hodoscopic Photomultipliers. *V. G. Vasil'chenko, V. V. Isakov, V. N. Marin, V. B. Postoev, A. I. Ronzhin, and V. I. Rykalin.* **1986, No. 1, 38 [39].**

Aperture Counters of GAMS Spectrometer. *V. S. Datsko, D. B. Kakauridze, Yu. D. Prokoshkin, V. I. Rykalin, and P. M. Shagin.* **1986, No. 3, 583 [70].**

Optimal Encoding in Scintillation Hodoscopes. *N. H. Nikityuk .* **1986, No. 6, 1320 [77].**

Multiplicity Registration in Hodoscope Systems with a Large Number of Registration Channels. *N. M. Nikityuk.* **1987, No. 3, 559 [59].**

Stabilization and Calibration of Hodoscopic Cerenkov Spectrometer. *A. S. Aleksanyan, A. V. Voskanyan, A. O. Gasparyan, A. Zh. Ketikyan, A. Zh. Petrosyan, and R. N. Pikhtelev.* **1987, No. 4, 793 [40].**

Characteristics of Lead-Glass Hodoscopic Electromagnetic Calorimeter with Aperture of 2 m^2. *G. S. Bitsadze, Yu. A. Budagov, Yu. F. Lomakin, S. N. Malyukov, A. A. Oleinik, N. A. Rusakovich, A. A. Semenov, V. B. Flyagin, Yu. N. Kharzheev, A. B. Iordanov, L. B. Litov, R. V. Tsenov, V. M. Maniev, I. A. Minashvili, and J. Spalek.* **1987, No. 4, 808 [52].**

Recoil-Particle Detector for BIS-2 Spectrometer of Joint Institute for Nuclear Research. *V. A. Aref'ev, I. N. Kakurin, A. Ya. Skiteva, and G. G. Takhtamyshev.* **1987, No. 5, 1067 [50].**

A Method and Device for Recording Signal Sets in Hodoscope Systems by Syndrome Encoding. *N. M. Nikityuk and A. V. Selikov.* **1987, No. 6, 1336 [55].**

Use of LGD-256 Hodoscopic Shower Detector for Registration of Neutral Mesons with Energies to 10 GeV. *S. A. Akimenko, V. I. Belousov, A. M. Blik, V. Glinka, V. N. Kolosov, V. M. Korolev, V. M. Kut'in, A. I. Pavlinov, V. I. Romanovskii, S. V. Sergeev, A. S. Solov'ev, and V. I. Shelikhov.* **1988, No. 1, 46 [45].**

Use of Memory-Element Arrays for Monitoring of Heavy-Ion Currents. *D. V. Akin'shin, M. N. Borisova, N. G. Goleminov, A. Yu. Didyk, V. A. Skuratov, and V. I. Smirnov.* **1990, No. 6, 1271 [49].**

64-Input Hodoscope–Coder for Registration of Single-Particle Events with Clusters. *N. M. Nikityuk, P. A. Rukoyatkin, and A. L. Svetov.* **1991, No. 1, 88 [94].**

3.13. Study of detector characteristics

Investigation of the Sensitivity of Photomultipliers to Gamma Quanta. *O. V. Kozlov and I. M. Egelev.* **1977, No. 1, 61 [56].**

Edge and Radial Dependence of Gas Multiplication Factor in Cylindrical Proportional Counters. *Yu. V. Abramov, E. V. Devyataikin, and Yu. Ya. Sokolov.* **1977, No. 3, 684 [68].**

Experimental Determination of the Dead Time of Ionizing Radiation Detectors. *A. S. Dubovenko, N. S. Pronkin, and O. V. Rogozhin.* **1978, No. 2, 315 [46].**

Memory Time of Gas-Discharge Converters of X-Ray Pictures with Neon Filling. *V. I. Vystropov.* **1978, No. 2, 318 [49].**

Optimization of Collimating Devices of Gamma-Cameras with Time Modulation of the Signal. *G. A. Fedorov.* **1979, No. 6, 1527 [47].**

Selection of a Detector of Ionizing Radiation for Speed of Response. *A. K. Stroikovskii, M. V. Sazhin, V. P. Dombrovskii, and V. I. Ryashchikov.* **1980, No. 2, 371 [77].**

Sensitivity of Thermal-Neutron Detectors Containing Moderators. *V. E. Aleinikov, V. A. Arkhipov, L. G. Beskrovnaya, M. M. Komochkov, and Yu. V. Mokrov.* **1983, No. 1, 50 [49].**

Laser Source of Light Pulses for Calibrating Multichannel Systems with Photographic Recording. *A. S. Aleksanyan, N. A. Nalbandyan, A. Zh. Petrosyan, and R. N. Pikhtelev.* **1983, No. 4, 809 [64].**

Characteristics of a Detector with a Dielectric Scatterer for the Registration of Pulsed Gamma Radiation. *G. S. Alekseev, A. V. Grunin, A. I. Tikhonov, E. N. Donskoi, G. F. Ioilev, Yu. G. Kudryavtsev, and V. P. Smirnov.* **1983, No. 5, 1032 [36].**

Calculation of the Load Characteristics of Detectors, Taking into Account the Time Structure of Pulsed Particle Sources. *G. Kh. Kazaryan and S. E. Piliposyan.* **1983, No. 6, 1265 [19].**

Investigation of the Characteristics of a Polyethylene Detector and an Adiabatic Calorimeter in the Radiation Fields of High-Energy Accelerators. *V. E. Borodin, N. V. Mokhov, V. A. Rogov, E. Yu. Roinishviii, and M. M. Sukharev.* **1983, No. 6, 1300 [48].**

Determination of Conversion Nonlinearity for X-Ray Detectors. *A. G. Tur'yanskii and O. P. Fedoseeva.* **1985, No. 3, 567 [62].**

Determination of Maximum Possible Range of Detector Readings in Multidetector Apparatus. *I. L. Guseva, V. K. Lyapidevskii, and L. B. Samoilova.* **1985, No. 6, 1299 [59].**

Use of Corona Discharge in Gas-Discharge Detectors for Diagnosis of Measuring Apparatus. *L. M. Onishchenko and A. L. Shishkin.* **1986, No. 4, 797 [38].**

Calculation of Charged-Particle Registration Efficiency of Detectors. *V. P. Kondrat'ev, L. V. Krasnov, and I. V. Stepanov.* **1986, No. 4, 827 [65].**

An Integral Counting Technique of Recording Small Variations in the Intensity of a Particle Flux. *Y. A. Mostovoi, O. V. Khakhan, and B. G. Erozolimskii.* **1986, No. 6, 1299 [58].**

Automated System for Kinetic Studies of Luminescence. *E. S. Voropai, F. A. Ermalitskii, D. I. Sagaidak, A. F. Chernyavskii, and A. E. Shifrin.* **1988, No. 1, 68 [64].**

Stability of Spectrometric Characteristics of Detectors of Low-Penetration Ionizing Radiation. *Yu. T. Vydai, L. B. Zagarii, and Yu. A. Tsirlin.* **1990, No. 2, 311 [74].**

Study of Semiconductor Detectors Using Heavy-Ion Time-of-Flight Spectrometer. *A. A. Aleksandrov, N. N. Demidovich, V. F. Kushniruk, Yu. V. Pyatkov, A. V. Rykhlyuk, A. I. Slyusarenko, Yu. P. Kharitonov, A. N. Shemetov, and I. A. Shlyapina.* **1990, No. 6, 1286 [61].**

Measurement of Parameters Determining Energy and Charge Losses in Silicon Ion Detectors. *E. M. Verbitskaya, V. K. Eremin, A. M. Ivanov, N. B. Strokan, U. Sh. Turebekov, and B. Schmidt.* **1990, No. 6, 1290 [64].**

Selection of Charged-Particle Detector for Extensive Air Showers. *V. V. Vashkevich, Yu. A. Nechin, B. A. Khrenov, G. B. Khristiansen, V. V. Pomerantsev, and V. G. Senchishin.* **1991, No. 3, 523 [48].**

4. EXPERIMENT AUTOMATION

Use of Microprocessors in Instrument Design and in Experimental Investigations (Review). *Ya. M. Damatov, N. M. Nikityuk, and R. Shyussler.* **1979, No. 4, 889 [7].**

Personal Computers (Review). *V. P. D'yakonov.* **1986, No. 1, 1 [7].**

Use of MIR-2 Computer in Automatic Physical Measurements. *I. M. Breev, S. V. Demin, A. M. Martsinovskii, and V. S. Revenko.* **1977, No. 2, 405 [69].**

Use of MIR-2 Computer for Visual Display of Half-Tone Images. *V. I. Zabolotskikh, N. I. Kalyadin, and V. E. Katsman.* **1979, No. 2, 386 [90].**

Portable Logic Analyzer. *E. D. Baran, E. N. Miroshnikov, V. I. Rabinovich, A. V. Khudomyasov, and A. A. Chaika.* **1981, No. 2, 377 [84].**

Interrupt Scheme for NAIRI-2 Computer. *D. S. Oganezova.* **1981, No. 6, 1389 [54].**

Fast 15-Bit Processor. *S. G. Bobkov and V. A. Kantserov.* **1983, No. 2, 300 [56].**

Personal Computers and Measurement-Computation Complexes for Automation of Large-Scale Laboratory Experiments. *V. V. Ivanov, A. D. Morenkov, and A. Ya. Oleinikov.* **1984, No. 5, 1106 [56].**

Device for Measuring Distribution Function of Random Processes. *Dzh. K. Parsamyan and B. E. Sobotkovskii.* **1985, No. 4, 863 [119].**

Two-Processor Data-Acquisition System Based on Élektronika-60 and Élektronika N MS 11100.1 Microcomputers. *V. A. Bashkirov, V. A. Kantserov, and V. B. Strigin.* **1986, No. 1, 50 [49].**

Fault Detector for Digital-Filter Memory Units. *S. L. Titov, P. V. Kozlyuk, and V. P. Malinochka.* **1986, No. 2, 368 [94].**

Real-Time Running of Auxiliary Routines in Rosa-1M Spectrum-Analyzer Computer. *E. A. Vasil'ev and V. I. Povstugar.* **1986, No. 2, 370 [97].**

Digital Storage Unit Implemented by Random-Access-Memory Chips. *A. A. Gorbov, V. P. Demchenkov, and I. N. Korobkov.* **1986, No. 2, 375 [101].**

Two-Processor Computer System Based on Élektronika NTs-03D Computer. *A. V. Eliseenko, V. M. Kazak, T. A. Kosykh, A. I. Morozov, and M. G. Sedunov.* **1987, No. 2, 291 [46].**

Digital Accumulator with Successive Moving Pulse Summation. *V. P. Demchenkov and I. N. Korobkov.* **1987, No. 2, 328 [79].**

Use of Microcomputer for Study of Fiber-Optic Elements. *I. V. Kalmykov, N. L. Klepikova, N. P. Lamtyugina, V. G. Lomanov, A. M. Prokhorov, and N. D. Simachev.* **1988, No. 1, 76 [71].**

Microprocessor Subsystem for Extremal Control of Beam Current of U-400 Cyclotron by Variation of Ion-Source Conditions. *A. A. Kas'yanov, V. B. Kutner, V. M. Rybin, A. M. Sukhov, Yu. P. Tret'yakov, V. G. Subbotin, and B. V. Fefilov.* **1989, No. 6, 1324 [82].**

Dual-Processor Data-Acquisition System Based on Personal Computer and Single-Board Microcomputer. *V. M. Klimov, V. I. Mikerov, N. P. Saposhnikov, and S. I. Sitnikov.* **1990, No. 1, 97 [104].**

4.1. Computer processing of experimental data

On-Line Computer Filtration of Digital Data in Intermediate- and High-Energy Physics (Review). *N. M. Nikityuk.* **1983, No. 2, 247 [7].**

Calculation of Peak-Detection Probability for Line Spectra. *I. M. Gopych, I. I. Zalyubovskii, G. Éler, and G. V. Vinel'.* **1977, No. 4, 1021 [90].**

Method for Computer Processing of Experimental Information. *I. M. Breev.* **1979, No. 2, 383 [88].**

Structure and Basic Working Regimes of a System for Processing Film Information (SOFI). *V. V. Zhurkin, V. E. Krupnov, A. V. Lisovskii, V. I. Lyulevich, V. A. Matveev, V. M. Polikarpov, D. A. Tolkachev, and O. P. Fedotov.* **1980, No. 4, 880 [70].**

Hardware Programmed Filtration of Pictures from a Hydrogen Chamber in a Regime of Minimal Target Designation. *B. S. Voikov, L. V. Ivanov, V. E. Krupnov, V. A. Matveev, V. M. Polikarpov, D. A. Tolkachev, O. P. Fedotov, and S. G. Khlopov.* **1980, No. 4, 883 [73].**

Rapid Processing of Mössbauer Spectra with an LP-4900 Multichannel Analyzer. *B. M. Gavrilov and B. G. Zemskov.* **1981, No. 3, 644 [78].**

Optimal Data Encoding in Hodoscopic Systems. *N. M. Nikityuk.* **1983, No. 3, 572 [74].**

Graphical-Data Processing System. *N. V. Egorov and A. G. Karpov.* **1984, No. 5, 1114 [63].**

Reduction to Ideal Instrument by Linear Programming. *V. K. Lyapidevskii.* **1984, No. 6, 1366 [62].**

Optimum Smoothing of Data Plus Noise Using Fast Fourier Transform. *E. L. Kosarev and E. Pantos.* **1985, No. 3, 600 [92].**

Processing Mössbauer Spectra with an EMG-666 Microcomputer and an NTA-1024 Multichannel Analyzer. *D. S. Zakhar'in, F. Kh. Chibirova, and S. I. Reiman.* **1985, No. 4, 785 [49].**

Improving Spectrometer-Channel Resolution by Minicomputer Processing of Experimental Data. *V. A. Voronov, Yu. I. Nechaev, and G. P. Pokhil.* **1987, No. 1, 66 [63].**

Microcomputer Processing of Nuclear Gamma Resonance Spectra. *S. M. Cheremisin.* **1988, No. 3, 609 [80].**

Data-Processing System with Flexible Architecture. *D. V. Orlov and A. V. Salabai.* **1988, No. 4, 867 [41].**

The Shannon Limit of Superresolution and Its Attainment in Signal Restoration. *E. L. Kosarev.* **1989, No. 4, 827 [84].**

Increasing Spectrometer Resolution by means of Tikhonov's Regularization Algorithm. *A. V. Pogulyai, S. D. Mal'ginova, and V. I. Khvostenko.* **1989, No. 5, 1089 [107].**

Use of A Priori Probability to Detect Short-Lived Random Events. *V. F. Kositsyn and A. V. Shumakov.* **1991, No. 4, 842 [99].**

Programs for Signal Recovery from Noisy Data by Maximum-Likelihood Method. *V. I. Gel'fgat, E. L. Kosarev, and E. R. Rodolyak.* **1991, No. 5, 1070 [86].**

Spectrum Smoothing Using Data on Frequency Composition of Noise. *A. V. Yakovenko.* **1991, No. 5, 1076 [91].**

4.2. Use of pocket calculators

Programmable Calculators (Review). *V. P. D'yakonov.* **1985, No. 6, 1239 [5].**

Use of the HP-9820 Desktop Calculator in Processing Photographic Data from Spark Chambers. *V. D. Kozlov.* **1979, No. 5, 1263 [70].**

Interpolating Time Interval Meter Based on an Élektronika B3-21 Calculator. *S. V. Denbnovetskii, S. M. Kokoshkin, Yu. I. Solomko, and A. N. Shkuro.* **1981, No. 1, 78 [76].**

Signal Processor Based on the Élektronika B3-18 Microcomputer. *S. V. Klevtsov, E. A. Putsyato, Yu. P. Firstov, and N. P. Chistyakov.* **1981, No. 4, 936 [107].**

Interfacing Digital Instruments with the Élektronika B3-21 Calculator. *V. I. Sagaidak and Yu. M. Shcherbak.* **1981, No. 5, 1179 [78].**

Device for Interfacing Digital Instruments with the Élektronika B3-21 Calculator. *S. V. Denbovetski, A. N. Shkuro, S. M. Kokoshkin, and V. A. Svyatnenko.* **1982, No. 1, 85 [81].**

A Timeswitch Based on an Élektronika B3-21 Programmable Microcalculator. *A. N. Dorofeev.* **1982, No. 4, 866 [80].**

The B3-37 Microcalculator in Devices with Frequency Meters. *V. D. Sibirtsev.* **1983, No. 1, 71 [68].**

Using the Élektronika MK-46 Calculator in a Measurement Complex. *S. D. Sozontov.* **1985, No. 2, 342 [73].**

Using the Élektronika MK-46 Microcalculator for Automatic Processing of Experimental Data. *V. K. Narkyavichyus and G. Rachyukaitis.* **1985, No. 2, 343 [74].**

Interface for Élektronika B3-21 Calculator. *I. M. Batyaev.* **1985, No. 2, 394 [122].**

Use of the Élektronika MK-64 Calculator for Controlling an Electric Oven. *M. S. Yunusov, Yu. Yu. Abdurakhmanov, V. M. Kim, and E. V. Obnedkov.* **1987, No. 3, 748 [220].**

Automatic Program Loader for Élektronika MK-64 Pocket Calculator. *V. F. Telegin and V. N. Bizyaev.* **1988, No. 3, 613 [83].**

Interfacing AI-1024 Analyzer with Élektronika-85 Personal Computer. *V. K. Baturin and A. Yu. Chernyak.* **1990, No. 6, 1417 [171].**

4.3. Data-acquisition systems

Two-Channel Data Gathering and Registration System for Fast-Action Experiments. *A. N. Kasperovich, O. M. Mantush, and Yu. V. Shalaginov.* **1977, No. 4, 1016 [86].**

System for Collecting and Handling Multiple Analog Signals by Means of the Promin'-2 Computer. *D. P. Bernatskii and Yu. K. Ustinov.* **1978, No. 3, 648 [93].**

Signal Distributor. *V. S. Rotov.* **1979, No. 5, 1304 [110].**

Organization of Data Collection in Experiments on Small-Angle pp, pd, and pHe Scattering (Electronic Apparatus). *B. A. Morozov, P. V. Nomokonov, and V. A. Smirnov.* **1980, No. 1, 77 [81].**

System for Registering Data from Drift Chambers. *S. G. Basiladze and L. Lokhonyai.* **1981, No. 5, 1162 [62].**

System for Registering Data from Proportional Chambers. *S. G. Basiladze and V. K. Yudin.* **1981, No. 5, 1168 [68].**

System for Measuring Nanosecond Pulseforms On-Line with a TRA-1001/i Computer. *V. D. Inkin, V. P. Nikolaev, and T. P. Saenko.* **1981, No. 5, 1172 [72].**

Analog-Signal Integrators with Memory in a Data-Collection System. *V. I. Vinitskii and V. D. Uspenskii.* **1981, No. 5, 1181 [80].**

Program Device for Controlling a Multichannel Switch. *Yu. M. Bonkarev.* **1982, No. 2, 344 [62].**

System for Acquisition, Processing and Recording of Experimental Data Using an "Élektronika D3-28" Microcomputer. *A. I. Fradkov, G. P. Zimin, and O. A. Katsyuba.* **1982, No. 6, 1363 [47].**

Signal Distributor. *S. A. Batalov.* **1983, No. 2, 328 [82].**

Data Acquisition, Processing and Output System Using Two-Input CAMAC Modules. *A. E. Avramenko, N. I. Ariskin, and V. V. Samoilov.* **1983, No. 5, 1072 [67].**

Multichannel Measuring System for Acoustic Sounding of the Ocean. *V. P. Bystrov, A. V. Vavilin, P. A. Kapustin, Yu. A. Kravtsov, A. P. Maryshev, E. K. Musaev, V. G. Petnikov, O. I. Sabirov, M. M. Slavinskii, and S. Yu. Smirnov.* **1983, No. 5, 1166 [151].**

A Multichannel Data Collection System. *G. V. Basalaev and V. I. Glemba.* **1984, No. 2, 308 [50].**

System for Collection and Transmission of RISK Data to ES-1040 Computer. *A. Kishvaradi, Yu. P. Merekov, Z. Mikhaii, and N. N. Khovanskii.* **1984, No. 5, 1110 [60].**

Method for Matching of Signal Ranges in On-Board Digital Processing Systems. *I. D. Magin and V. A. Pogribnoi.* **1987, No. 3, 569 [68].**

Application of a Parallel Encoder in a Modified Gray Code for Recording Clusters. *L. N. Komolov, N. M. Nikityuk, A. I. Nomokonova, and A. L. Svetov.* **1987, No. 6, 1329 [49].**

Data-Acquisition Method for Multichannel Systems. *A. T. Avundzhyan and A. G. Oganesyan.* **1987, No. 6, 1346 [64].**

Modernization of Multiplexer Interface for SM-4 Computer in IVK-7 Data-Acquisition Complex. *E. P. Laricheva and N. F. Mazurin.* **1988, No. 2, 340 [71].**

Multichannel Data-Acquisition System based on SM-2 Minicomputer. *N. I. Epifanov, V. A. Kravtsov, V. N. Kravtsov, V. N. Mikhailyukov, Yu. A. Novikov, and Yu. V. Chvikov.* **1988, No. 4, 871 [44].**

Module for Analog-Data Acquisition. *A. A. Zhuchkov and A. I. Myagkikh.* **1989, No. 1, 106 [96].**

Multichannel Display System with Automatic Sequential Output of Analog Data. *Yu. A. Bykovskii, A. E. Gruzinov, and V. B. Lagoda.* **1989, No. 3, 714 [195].**

System for Recording of Experiment Data. *A. P. Vas'kovtsov, A. V. Zimin, A. A. Zori, D. O. Okhota, and M. G. Khlamov.* **1989, No. 6, 1318 [76].**

Multichannel Laser-Pulse-Energy Measuring System Based on an Élektronika BK-0010-01 Personal Computer. *D. I. Maleev, G. M. Mikheev, and T. N. Mogileva.* **1991, No. 5, 1063 [80].**

4.4. Automated measuring systems

Exchange Apparatus in PA-BÉSM-4 System for Analysis of Chamber Photographs. *M. A. Tashimov and E. V. Lobanov.* **1977, No. 1, 77 [71].**

Automatic System of Obtaining and Treating Experimental Data on Nonexponential Nuclear Relaxation. *V. P. Zelenin, V. A. Kamenskikh, G. E. Kibrik, A. N. Osipenko, Yu. I. Rozenberg, and G. I. Shaposhnikov.* **1977, No. 2, 407 [71].**

Automated System for Carrying out Experiments Using Subnanosecond Pulses. *V. V. Krylov and D. M. Ponomarev.* **1977, No. 2, 410 [74].**

Automated System of Measuring Magnetic Field of an Isochronous Cyclotron. *Yu. P. Buzulukov, N. I. Venikov, A. A. Vinogradov, I. V. Naumov, V. V. Paramonov, E. M. Khodakov, I. M. Shapkin, and V. E. Yarosh.* **1977, No. 3, 638 [28].**

Automation of Parameter Measurement and Monitoring for Amplification–Conversion Tract of a Spectrometer Based on Semiconductor Mosaics. *I. N. Sinogeev, M. N. Andronenko, and E. M. Orishchin.* **1977, No. 4, 966 [41].**

Device for Multivariate Analysis of Discrete Information. *V. M. Kuznetsov, V. V. Mameev, G. N. Petlin and V. K. Tomchakov.* **1977, No. 4, 1019 [89].**

Computer Prediction and Diagnosis of Failures of Systems in Electron Linear Accelerator. *V. N. Boriskin and I. A. Grishaev.* **1977, No. 5, 1277 [45].**

System of Automation of Measurements and Processing of Data from Thin-Layer Chromatograms. *V. Ya. Pisanov, G. A. Afanasenko, and L. B. Kaminir.* **1978, No. 1, 42 [43].**

One-Arm Magnetic Spectrometer of the "Alfa" Facility. Description and Characteristics of Spectrometer. Operational Organization. *V. G. Ableev, S. G. Basiladze, Yu. T. Borzunov, G. G. Vorob'ev, L. B. Golovanov, S. A. Zaporozhets, V. I. Kakurina, A. I. Kruglov, B. K. Kuryatnikov, P. K. Man'yakov, E. A. Matyushevskii, A. A. Nomofilov, A. N. Parfenov, V. D. Peshekhonov, N. M. Piskunov, A. D. Rogal', V. N. Sadovnikov, I. M. Sitnik, E. A. Strokovskii, L. N. Strunov, G. M. Susova, A. P. Tsvinev, V. I. Sharov, and V. K. Yudin.* **1978, No. 2, 334 [63].**

System of Automatic Measurement of the Characteristics of the Electronic Apparatus of a 90-Channel Cerenkov Mass Spectrometer. *S. G. Basiladze, V. A. Kramarenko, V. Oleinichak, and M. N. Khachaturyan.* **1978, No. 2, 342 [70].**

Electronic Apparatus of a 90-Channel Cerenkov Mass Spectrometer. *R. G. Astvatsaturov, S. G. Basiladze, V. I. Ivanov, E. Knapik, V. A. Kramarenko, A. I. Malakhov, G. L. Melkumov, A. N. Parfenov, B. M. Starchenko, and M. N. Khachaturyan.* **1978, No. 2, 345 [73].**

Use of "Nairi-K" in Multichannel Installation for Activation Measurements. *V. I. Boldisov, O. A. Dubrovskii, V. P. Koroleva, N. P. Kurakov, and L. A. Chernov.* **1978, No. 5, 1249 [87].**

Device for Measuring the Lifetimes of Nuclear Levels with an On-Line Computer. *B. A. Alikov, Ya. Vavryshchuk, Z. V. Krumshtein, K. M. Muminov, T. M. Muminov, R. R. Usmanov, F. Kh. Khamraev, G. Khemnits, and N. N. Khovanskii.* **1979, No. 2, 378 [83].**

Autonomous Diagnostic System for a Beam of Particles. *S. G. Basiladze, L. N. Komolov, and V. K. Yudin.* **1979, No. 5, 1284 [90].**

Automatic Acquisition, Storage, and Processing of Experimental Cosmic-Ray Data with a Nairi-2 Digital Computer. *V. V. Avakyan, L. S. Bagdasaryan, I. E. Vasinyuk, O. M. Vinnitskii, S. P. Kazaryan, Dzh. S. Oganezova, and A. G. Oganesyan.* **1979, No. 6, 1541 [58].**

System for Automatic Control of a Setup for Measuring Angular Correlations. *V. N. Belyaev, V. Yu. Kovalen', B. V. Sobolev, and Yu. V. Shtotskii.* **1980, No. 2, 378 [83].**

The Mir-1 Computer in Experiment Automation. *N. A. Dogolyubov and V. O. Khandros.* **1981, No. 3, 641 [76].**

Measuring and Computing Complex for Multidimensional Experiments Based on Two M-400 Computers. *F. N. Berezin, V. A. Kirusin, R. G. Ofengenden, Yu. V. Patlan', S. S. Savrasov, M. A. Shaleiko, and A. M. Shidlyk.* **1981, No. 4, 896 [67].**

Automated System of Mass-Spectrometer Recording with Introduction of Specimens in the Form of a Modulated Molecular Beam. *A. F. Dodonov, V. V. Zelenov, V. I. Buchnev, B. V. Kudrov, P. I. Larikov, and V. V. Raznikov.* **1981, No. 5, 1176 [75].**

A Computer Applied to Dynamic-Loss Measurement for a Superconducting Magnet. *F. Gemeri, A. N. Erokhin, S. Yu. Ershov, L. S. Shirshov, and G. Enderlein.* **1982, No. 3, 585 [70].**

Flight-Time System with Automatic Adjustment and Logic Sampling of Information for the Nataliya-2 Telescope. *D. Yu. Akimov, S. E. Belenko, Yu. D. Kotov, O. N. Romanov, and V. T. Samoilenko.* **1982, No. 4, 828 [45].**

Multichannel Amplitude Analyzer Using the "MERA-60" Microcomputer. *B. V. Fefilov and Nguen Hak Thi.* **1982, No. 5, 1113 [67].**

Data Processing Complex Based on the Élektronika D3-28 Minicomputer. *M. V. Grinberg, L. Ya. Kashporov, and V. D. Gladun.* **1983, No. 1, 63 [61].**

Multichannel Automated System for Measuring the Nonuniformity Index of the Magnetic Field of a Synchrophasotron. *M. A. Voevodin, V. I. Volkov, L. P. Zinov'ev, A. D. Kovalenko, N. A. Korukov, I. Kulikov, Yu. I. Romanov, Sh. Z. Saifulin, and Yu. I. Tikhomirov.* **1983, No. 3, 559 [61].**

Automated Electronic System for a Multilayer Semiconductor Spectrometer. *I. I. Gaisak, M. G. Gornov, Yu. B. Gurov, A. S. Lukin, P. V. Morokhov, K. O. Oganesyan, B. P. Osipenko, E. A. Pasyuk, V. A. Pechkurov, A. P. Pichugin, S. Yu. Porokhovoi, B. S. Rozov, V. I. Savel'ev, F. M. Sergeev, A. A. Khomotov, and R. R. Shafigullin.* **1983, No. 5, 1011 [19].**

Analog-to-Digital Interface and Real-Time Measurement of the Phase Volume of a Beam Using an "Élektronika-100I" Computer. *V. I. Batkin and V. N. Getmanov.* **1983, No. 5, 1077 [72].**

Automatic System for Time-of-Flight Mass Spectrometric Measurements. *M. V. Aprelev, A. A. Glebovskii, I. F. Moiseenko, and A. A. Lisachenko.* **1984, No. 1, 92 [89].**

An Automated System for Investigations of the Temperature Dependence of the Electron Spin-Lattice Relaxation Time. *V. N. Dudkov and V. I. Muromtsev.* **1984, No. 2, 302 [44].**

Independent Measuring Station of the Information-Measuring System of the Neutron Spectrometer GNEIS. *I. S. Gorokhov, A. B. Laptev, V. V. Marchenkov, Yu. V. Tubol'tsev, E. Yu. Fokin, and O. A. Shcherbakov.* **1984, No. 2, 306 [48].**

Multipurpose Measurement-and-Control Complex Using D3-28 Computer. *A. L. Aleksandrov, B. G. Ignatov, A. N. Ponomarev, L. Z. Pososhenko, and V. E. Sizov.* **1985, No. 1, 62 [62].**

Data Register and Processor for Multiwire Chambers. *V. V. Karpukhin.* **1985, No. 1, 73 [73].**

Dialog System for Automatic Data Input/Output and Processing with Two BÉSM-6 Computers. *Yu. N. Belyaev, Yu. P. Gorlov, S. V. Makarychev, A. A. Monakhov, and S. A. Shcherbakov.* **1985, No. 2, 334 [65].**

Device for Geometric Transformations of Outline Images. *V. A. Afanas'ev, V. I. Lachugin, and V. I. Sobolev.* **1985, No. 2, 381 [111].**

M-222-Computer-Based Aerodynamic-Data Acquisition and Processing System. *V. A. Zakharchuk, A. A. Zori, E. O. Savkova. A. V. Ryndin, and N. A. Yaroshenko.* **1985, No. 3, 598 [90].**

Spectrometer Module on Line with Élektronika D3-28 Microcomputer. *V. G. Vlasov and A. I. Frolov.* **1985, No. 4, 787 [51].**

Digital Correlator for Operation with Élektronika-60 Computer. *V. A. Deshabo and Yu. F. Kiyachenko.* **1985, No. 4, 807 [69].**

Multivariate Analyzer Based on SM-3 Computer and CAMAC Hardware. *R. Kupczak, A. Soltan, N. K. Skobelev, M. Lewitowic, A. Jankowski, and G. Baluka.* **1985, No. 5, 1061 [67].**

Image-Processing System Based on Élektronika-60 Computer. *S. A. Kolesnikov, V. V. Lyubarskii, and E. A. Mnatsakanyan.* **1986, No. 1, 52 [51].**

Automated System for Processing of Photographs from Large Bubble Chambers. *V. A. Goncharov, A. F. Dunaitsev, P. F. Ermolov, V. D. Zhil'chenkov, Yu. L. Kurkin, A. P. Leonov, V. D. Longinov, O. I. Mikhailov, G. D. Nekipelova, V. A. Petukhov, A. V. Popov, V. I. Rybachenko, N. P. Savin, E. A. Ustinov, P. V. Shlyapnikov, V. D. Yuralov, and V. A. Yarba.* **1986, No. 2, 316 [52].**

Unified Control Hardware for Automated System for Processing of Photographs from Large Bubble Chambers. *V. A. Goncharov, A. F. Dunaitsev, P. P. Ermolov, Yu. L. Kurkin, A. P. Leonov, V. D. Longinov, G. D. Nekipelova, A. V. Popov, E. A. Ustinov, P. V. Shlyapnikov, V. D. Yurpalov, and V. A. Yarba.* **1986, No. 2, 321 [56].**

Mirror-Deflector Controller in Laser Graphics Read/Write Device. *N. E. Detinenko, A. A. Ivanov, Yu. S. Nechaev, T. G. Yakovleva.* **1986, No. 2, 350 [79].**

Digital Remote-Control System for Power Supplies of Magneto-Optical Elements of Particle Channels. *P. B. Vetrov, G. P. Ermolina, V. S. Kuznetsov, and A. N. Moibenko.* **1986, No. 2, 355 [83].**

Microprocessor Current Monitor and Voltage Controller for Wire Gas Detectors. *V. V. Zil'berg, P. A. Kulinich, and R. Toledo.* **1986, No. 3, 611 [95].**

Minicomputer-Based Photon Correlator and Counter. *A. Sh. Gongadze and A. T. Mirzaev.* **1986, No. 3, 614 [98].**

CAMAC-Compatible Automation of Microwave Relaxometer using IZOT TsLANP-0270 Computer System. *E. D. Bulatov, V. A. Milyaev, V. A. Nikitin, and A. V. Shirkov.* **1986, No. 5, 1049 [61].**

Data-Processing and Control System Based on Élektronika D3-28 Microcomputer for Vibrating-Reed Magnetometer. *M. B. Dorofeeva, V. V. Chernobrovkin, V. V. Petrov, and Yu. G. Chukalkin.* **1987, No. 2, 295 [50].**

Automated Bench for Determination of Parameters of Multiterminal Networks. *V. D. Rudyk, A. A. Dryuchin, and N. A. Argat.* **1987, No. 2, 297 [52].**

Automated System for Calibration and Monitoring of Parameters of ChSPP-800 Multichannel Gamma Detector. *I. A. Avvakumov, N. I. Belikov, Yu. M. Goncharenko, A. P. Meshchanin, S. B. Nurushev, and V. L. Solov'yanov.* **1987, No. 4, 817 [59].**

Automated Analysis of Cellular Structures. *A. Ya. Kreines and V. E. Fradkov.* **1987, No. 5, 1081 [62].**

High-Frequency Accelerating Field Amplitude Programmer for Electron Synchrotron. *I. M. Korbakova and V. I. Tolmachev.* **1987, No. 6, 1298 [25].**

Automated Phase Meter based on an Élektronika-60 Computer. *Yu. P. Gul'chak, A. P. Golubev, V. V. Kalendin, V. Ya. Sup'yan, and I. V. Trotsishin.* **1987, No. 6, 1343 [61].**

Automated Meter of Volt-Farad Characteristics based on Élektronika-60 Computer. *B. I. Sysoev, V. D. Linnik, S. A. Titov, and M. M. Strilets.* **1988, No. 1, 71 [67].**

Use of Spectrum Analyzer with Élektronika-60 Microcomputer. *A. M. Agizim, E. D. Goryacheva, and V. R. Kravtsov.* **1988, No. 4, 875 [48].**

Microprocessor Subsystem for Control of Arc Source of Multiply Charged Ions of U-400 Cyclotron. *A. A. Kas'yanov, V. B. Kutner, V. M. Rybin, V. G. Subbotin, A. M. Sukhov, Yu. P. Tret'yakov, and B. V. Fefilov.* **1988, No. 4, 889 [58].**

Automation of Diffractometer Complex with Cold Moderator. *G. A. Oganezov, V. S. Bedbenov, A. G. Dzhagarov, and L. Yu. Otarova.* **1988, No. 6, 1456 [78].**

Pulse-Analysis System for Élektronika-60 Microcomputer. *N. V. Egorov and A. G. Karpov.* **1989, No. 1, 93 [83].**

Automated Multichannel System for Measurement of Rapidly Varying Optical Signals. *V. G. Brovchenko, A. M. Kirichenko, A. V. Mitrokhin, V. V. Seregin, Yu. A. Tarabrin, and M. M. Tsygankov.* **1989, No. 1, 198 [174].**

Automated System for Image Recording and Processing. *N. V. Egorov and A. G. Karpov.* **1989, No. 2, 355 [90].**

Automated System for Acquisition and Processing of Intensity-Modulated Signals from Fiber-Optic Sensors. *V. A. Vlasov, V. V. Moiseev, E. D. Mkhitaryan, and V. T. Potapov.* **1989, No. 3, 716 [197].**

Fail-Safe Cycle Control of Superconducting Synchrotron Using Mera-60 (Élektronika-60) Microcomputer. *N. P. Bazyleva, L. G. Efimov, K. Pasevich, G. M. Susova, and D. Enchbold.* **1989, No. 4, 832 [88].**

Use of Microcomputer and CAMAC System for Automatization of Acoustic Measurements. *B. B. Voronov, I. N. Kokshaiskii, and A. I. Korobov.* **1991, No. 4, 839 [96].**

Modular Automatic Apparatus for Study of Semiconductor Materials and Structures by Electrical and Photoelectric Measurements. *L. Nikolov, K. Germanova, B. Angelov, and M. Tonchev.* **1991, No. 5, 1059 [77].**

4.4.1. Modular systems

CAMAC System and Microprocessors (Review). *N. M. Nikityuk.* **1978, No. 1, 1 [5].**

Organization of Modular Software-Managed Systems with Standard Interfaces. *I. F. Kolpakov.* **1979, No. 2, 291 [7].**

CAMAC Serial Highway (Survey). *V. A. Foteev.* **1979, No. 5, 1195 [7].**

Electronic Registration Equipment in CAMAC Standard (Survey). *S. G. Basiladze.* **1981, No. 2, 291 [7].**

Input/Output Software for Automatic Experimental Equipment Using Small Computers and CAMAC Apparatus (Survey). *V. M. Vukolikov, A. N. Vystavkin, A. Ya. Oleinikov, E. V. Pankrats, and L. Z. Pososhenko.* **1982, No. 1, 1 [7].**

FASTBUS. A Standard for the Design of High-Speed, Fourth-Generation Electronic Apparatus (Review). *S. G. Basiladze.* **1982, No. 5, 1041 [5].**

Modular Bus Data-Acquisition and Control Systems (Review). *K. É. Érglis.* **1983, No. 1, 1 [7].**

Characteristics and Developmental Trends in Current Modular Bus Systems (Review). *V. G. Rybakov.* **1983, No. 4, 743 [7].**

FASTBUS System. Present State, Problems, and Future Prospects (Review). *V. G. Rybakov.* **1984, No. 6, 1303 [5].**

MULTIBUS-II Standard and Prospects for Its Use in Experiment Automation (Survey). *S. G. Basiladze.* **1985, No. 4, 739 [7].**

Analysis of Proposed New Standards for Experiment Automation Systems (Survey). *S. G. Basiladze.* **1986, No. 3, 511 [7].**

FOCAL Management of CAMAC Modules from a TPA-1001/i Computer. *A. Kh. Angelov and L. V. Dubovik.* **1977, No. 5, 1313 [75].**

Adaptation of the "VISHNYA" Rack to Chassis of Other Instrument Systems. *N. B. Pakhomova.* **1978, No. 6, 1644 [168].**

Organization of a Lengthened CAMAC Branch. *V. D. Inkin, V. P. Nikolaev, G. A. Filina, and L. A. Yukov.* **1979, No. 4, 990 [106].**

Method of Organizing Multicrate CAMAC Systems. *P. Khorvat, M. Morgach, and I. Turzo.* **1981, No. 4, 900 [71].**

Data Exchange by Means of a Serial Intercrate Link. *A. N. Sinaev and I. N. Churin.* **1982, No. 1, 94 [89].**

Organization of a Multicrate CAMAC System in High-Energy Physics Experiments. *S. G. Bobkov, V. A. Kantserov, P. L. Nevskii, and A. V. Sumarokov.* **1983, No. 1, 55 [54].**

Capabilities of the COMPEX Standard. *S. G. Basiladze, V. V. Suvorov, and O. Z. Éloev.* **1983, No. 6, 1305 [52].**

Experimental EUROBUS Microprocessor System. *Yu. V. Ermolin, A. A. Matyushin, and V. G. Rybakov.* **1984, No. 3, 581 [62].**

CAMAC-Crate Balancing Using Inquiry Selector. *S. G. Basiladze, A. N. Smirnov, and V. V. Suvorov.* **1985, No. 1, 82 [81].**

Line and Line-Switch Parameters in Crate Highways of Modular Systems. *K. É. Erglis.* **1985, No. 2, 353 [83].**

Exchange Circuits for Fastbus Slaves. *A. A. Bratskii, M. Yu. Matveev, and V. G. Rybakov.* **1985, No. 2, 363 [93].**

Exchange Circuits for Fastbus Masters. *A. A. Bratskii, M. Yu. Matveev, and V. G. Rybakov.* **1985, No. 2, 368 [99].**

Communication between SM-4 Computer and Remote CAMAC Crate. *M. Yu. Kratenko, V. D. Lipin, A. T. Pak, and A. A. Yuldashev.* **1986, No. 1, 59 [58].**

Clock for Computer and CAMAC Hardware for Measurement of Volt-Ampere Characteristic of Thermionic Converter. *Yu. N. Dzhashiashvili and M. A. Sazhnev.* **1986, No. 2, 359 [87].**

Project to Extend Fastbus Standard to Small Modules and Crates. *K. E. Erglis.* **1986, No. 4, 834 [73].**

General-Purpose Multilevel System Interface. *S. G. Basiladze, B. S. Aleshin, O. V. Kulik, A. N. Kulichenko, A. G. Nikolaev, V. V. Petrovskii, V. M. Rybnikov, I. A. Savel'ev, O. A. Shavrin, and Yu. D. Shchukin.* **1989, No. 5, 1094 [111].**

4.4.2. Modules and units

Quadruple CAMAC Universal Timer. *S. G. Basiladze and A. N. Parfenov.* **1977, No. 1, 91 [83].**

CAMAC Standard 160-MHz Decade Counter with Digital Readout. *S. G. Basiladze, Kim Yu Zem, and A. P. Kryachko.* **1977, No. 1, 99 [90].**

GTI-742 CAMAC Clock Pulse Generator. *Kim Yu Zem and A. P. Kryachko.* **1977, No. 3, 699 [82].**

Block for Coding and Reading Data from Hodoscopic Registration Systems in CAMAC Standard. *S. G. Basiladze, V. A. Smirnov, and V. K. Yudin.* **1977, No. 4, 1028 [97].**

Sixteen-Channel Time-Digital Converter in CAMAC Standard. *S. G. Basiladze and Li Van Sun.* **1978, No. 6, 1504 [45].**

Digital Display Unit of CAMAC Crate. *N. I. Zamyatin and D. A. Smolin.* **1979, No. 2, 397 [101].**

Applications of Computer Engineering in Experimentation-Independent Control Unit for Universal CAMAC Branch Driver. *L. G. Efimov and E. V. Chernykh.* **1979, No. 3, 710 [90].**

Unit for Data Transmission along Two-Lead Line in CAMAC Standard. *A. I. Vasil'ev, Yu. A. Karzhavin, and N. I. Moseiko.* **1980, No. 1, 89 [93].**

Generator of Pulses of Nanosecond Duration and Precise Amplitude with Digital Control in Standard CAMAC. *S. G. Basiladze and Nguen Kwang Min.* **1980, No. 1, 98 [102].**

4096-Channel Amplitude Analyzer in CAMAC Standard. *V. A. Antyukhov, N. I. Zhuravlev, and A. N. Sinaev.* **1981, No. 6, 1410 [74].**

Communications Unit for the F733 Analog-to-Digital Converter and the CAMAC Crate Dataway. *B. B. Borisov, V. F. Kiselev, and F. V. Smirnov.* **1982, No. 1, 89 [84].**

Modules for Controlling Experimental On-Line Hardware with an ES Computer. *L. G. Efimov.* **1983, No. 3, 566 [68].**

CAMAC Specialized Tabular Computer. *K. V. Vorob'ev, Yu. P. Firstov, and M. M. Yakobson.* **1983, No. 5, 1112 [103].**

Programmable Signal Shaper. *A. L. Finarevskii.* **1984, No. 2, 325 [67].**

Interfacing the "Kvarts-1" Terminal to the CAMAC Bus. *V. N. Pikhun and A. G. Ustinov.* **1984, No. 3, 598 [77].**

Unified CAMAC Microprocessor Module for Preliminary Data Processing. *V. L. Zaushitsyn, O. V. Kulik, and V. M. Repin.* **1984, No. 5, 1116 [65].**

CAMAC-Compatible Variable Analog Filter. *N. V. Belikov.* **1984, No. 5, 1120 [69].**

CAMAC-Compatible Graphics Module. *D. V. Togatov, A. V. Ermakov, V. S. Ivanov, and K. O. Kallistov.* **1985, No. 1, 98 [98].**

Control Unit and ADC for Automated System of Laser Probing of the Atmosphere in the CAMAC Standard. *V. I. Kabelka, A. A. Milyauskas, and R. V. Moteyunas.* **1985, No. 1, 103 [103].**

Ancillary Logic for Fastbus Segment. *A. A. Bratskii, M. Yu. Matveev, and V. G. Rybakov.* **1985, No. 2, 357 [87].**

Programmable Input Protection for Modules of Series ASVT-M. *J. Majerhoferova and V. Skarda.* **1985, No. 2, 384 [113].**

CAMAC-Compatible 16-Channel Counter Module. *E. N. Vladimirov, M. L. Grinfel'd, N. E. Orlova, and A. Z. Pliss.* **1985, No. 4, 793 [56].**

CAMAC-Compatible Nanosecond Pulse Shaper. *B. F. Kirillov, A. I. Klimov, and E. A. Meleshko.* **1985, No. 4, 796 [58].**

General-Purpose Microprocessor-Based CAMAC-Compatible Control and Processing Module. *E. G. Romanov, N. V. Chayanov, and E. O. Yanenko.* **1985, No. 5, 1065 [71].**

System of Nanosecond-Logic Modules. *S. G. Basiladze, A. N. Smirnov, A. N. Stepanov, and V. M. Rybnikov.* **1985, No. 5, 1068 [73].**

System of Nanosecond-Potential-Logic Modules. *S. G. Basiladze, A. E. Buklei, A. N. Larichev, and A. K. Leflat.* **1985, No. 6, 1308 [68].**

Multichannel Analog-Digital Converter in Vektor-CAMAC Systems. *M. E. Borodyanskii and E. I. Moravskii.* **1986, No. 2, 362 [89].**

Controller for Linear Imaging Device Implemented by Charge-Coupled Devices and Interfaced with Élektronika-60 Computer. *V. V. Ivanov.* **1986, No. 5, 1052 [63].**

CAMAC-Compatible Quantizer Module Based on High-Speed Parallel Analog-Digital Converter. *Yu. A. Budagov, V. G. Zinov, M. Seman, A. A. Semenov, B. Sitar, and J. Spalek.* **1987, No. 1, 62 [59].**

Programmer for Memories, Logic Arrays, and Logic Controllers. *S. G. Basiladze, A. N. Smirnov, V. V. Suvorov, and S. A. Fastov.* **1987, No. 2, 303 [57].**

CAMAC-compatible Differential Pulse Discriminator-Counter. *I. V. Tselikov.* **1987, No. 4, 841 [80].**

CAMAC-Compatible Logic Module for Control of Pulsed Energy Source. *V. A. Vorob'ev, Yu. G. Gendel', G. V. Karpova, and G. V. Kuznetsova.* **1988, No. 4, 893 [61].**

CAMAC-Compatible Preprocessor for Multivariate Data. *Yu. F. Pevchev, A. G. Sadchikov, and S. I. Sitnikov.* **1988, No. 6, 1453 [75].**

Development of FASTBUS-Compatible Modules for Recording of Analog Data from Multichannel Coordinate Detectors. *M. Weiss, V. S. Korolev, A. N. Parfenov, A. V. Pilyar, and E. Hmelewski.* **1988, No. 6, 1461 [82].**

CAMAC-Compatible Programmable Data-Processing Module Based on Microprocessor Chips of Series KR580. *O. V. Kulik and V. M. Repin.* **1989, No. 3, 574 [74].**

Microprogram Controller for Four-Phase Stepper Motor. *L. N. Lozovoi.* **1989, No. 3, 724 [204].**

CAMAC-Compatible Unit for Automatic Measurement-Range Selection for Multichannel Digital Signal-Recording Systems. *S. I. Goryushkin, M. A. Ovchinnikov, and Yu. N. Yakovlev.* **1989, No. 4, 838 [94].**

CAMAC-Compatible Programmable Frequency Synthesizer. *T. Kh. Yumaguzin, D. E. Vyazovkin, E. R. Nazirov, and R. F. Tuktarov.* **1989, No. 4, 848 [103].**

CAMAC-Compatible Multistop Time-to-Number Converter. *V. G. Zinov and A. V. Selikov.* **1989, No. 5, 1125 [136].**

CAMAC Units for Acceleration of Data Acquisition and Processing in Nuclear Spectroscopy. *J. Baczynski.* **1990, No. 2, 341 [100].**

Interface and Memory Modules for Multilevel-System-Interface Protocol. *S. G. Basiladze, A. G. Nikolaev, and V. M. Rybnikov.* **1990, No. 4, 811 [91].**

CAMAC-Compatible Input/Output Device for Images. *A. V. Koryabin, A. N. Rakhmanov, V. I. Shmal'gauzen, S. G. Basiladze, and Yu. D. Shchukin.* **1990, No. 4, 821 [101].**

CAMAC Modules that Enhance the Speed of the Polon 131 Independent Processor. *J. Baczynski.* **1990, No. 5, 1077 [99].**

High-Speed CAMAC-Compatible Analog-to-Digital Converter. *S. G. Basiladze and Yu. D. Shchukin.* **1990, No. 5, 1081 [102].**

Spectrometer Modules that Operate with Personal Computers Using Multilevel-System-Interface Protocol. *S. G. Basiladze, Yu. D. Shchukin, and O. Z. Éloev.* **1991, No. 2, 328 [91].**

4.4.3. Controllers

CAMAC Control System Using a Microcomputer Controller. *V. T. Sidorov, A. N. Sinaev, and I. N. Churin.* **1980, No. 6, 1367 [48].**

KK1 Crate Controller for an Eclipse Computer. *S. G. Bobkov and V. A. Kantserov.* **1981, No. 1, 84 [82].**

A Controller for a Standard IEC BUS on the Basis of an Élektronika D3-28 Microcomputer. *V. P. Biryulin, S. P. Morozov, N. A. Pelykh, V. I. Sadchikov, and V. N. Shcheglov.* **1982, No. 4, 858 [72].**

Microprogrammable Channel Controller for the ES Computer. *V. N. Sadovnikov.* **1983, No. 3, 562 [64].**

Autonomous Controller Employing 155IP3 Arithmetic-Logic Unit. *A. B. Laptev, V. V. Marchenkov, Yu. V. Tubol'tsev, I. V. Tubol'tseva, and E. Yu. Fokin.* **1984, No. 6, 1369 [65].**

COMPEX-Compatible Manual-Control and Display Units. *S. G. Basiladze, V. Ya. Rakitskii, A. N. Smirnov, V. V. Suvorov, and Yu. D. Shchukin.* **1985, No. 1, 78 [77].**

Unification of Status Registers of Multiprocessor-Highway Controllers. *S. G. Vasiladze, V. M. Rybnikov, and O. Z. Éloev.* **1985, No. 2, 346 [77].**

Intercrate-Communications Controller for Multicrate Multiprocessor Systems That Use CAMAC-COMPEX Protocol. *S. G. Basiladze and V. M. Rybnikov.* **1986, No. 1, 56 [55].**

Independent Programmable CAMAC Crate Controller Based on KR580IK80A Microprocessor. *O. V. Kulik and M. A. Andronov.* **1986, No. 3, 603 [87].**

Modular Crate Controllers. *N. V. Gorbunov, Yu. V. Ermolin, P. V. Mamakov, V. G. Rybakov, and A. N. Sytin.* **1986, No. 3, 607 [91].**

Multimode Controller for Interfacing SM-3 and SM-4 Minicomputers with CAMAC-COMPEX Hardware. *S. G. Basiladze and O. Z. Éloev.* **1987, No. 1, 55 [53].**

BD-411 Branch Driver. *N. V. Gorbunov, A. G. Karev, E. I. Mal'tsev, and B. A. Morozov.* **1987, No. 1, 73 [69].**

Interface Adaptor for Élektronika-60 Computer and "Common Bus" Crate Controller. *S. G. Basiladze, A. N. Smirnov, and V. V. Suvorov.* **1987, No. 2, 300 [54].**

CAMAC-Compatible Microprocessor Controller with Analog-to-Digital-to-Analog Channel. *V. L. Tsymbalenko.* **1988, No. 5, 1177 [78].**

Use of Élektronika MS-2702 Controller with Stepper Motor. *V. P. Artemkin, E. L. Krylova, and A. V. Petrov.* **1989, No. 3, 584 [84].**

Crate Controllers of Multiprocessor Systems Employing CAMAC-COMPEX Protocol. *S. G. Basiladze and V. M. Rybnikov.* **1990, No. 2, 334 [94].**

CAMAC Parallel-Branch Driver for Élektronika-60 Microcomputer. *S. I. Sitnikov.* **1990, No. 3, 565 [83].**

4.5. Interfaces

Standard Interfaces for Program-Modular Multiprocessor Systems (Review). *E. V. Chernykh.* **1982, No. 4, 783 [5].**

Characteristics of Modern Standard Interfaces for Programmable Modular Multiprocessor Systems (Review). *V. M. Vukolikov, A. N. Vystavkin, V. V. Ivanov, S. V. Kiryukhin, M. B. Levinshtein, A. Ya. Oleinikov, and E. V. Pankrats.* **1987, No. 5, 1015 [6].**

Interface between the Display Unit and the Program for Operative Reduction of Spectra with an M-6000 Computer. *N. M. Artamonova, N. K. Lastochkin, O. N. Pokrovskii, and A. V. Tyurin.* **1978, No. 6, 1494 [37].**

Interface Cards for Voltmeters and Multimeters for IEC Standard Bus. *A. N. Domaratskii, S. N. Domaratskii, N. V. Popenko, and L. S. Sitnikov.* **1980, No. 5, 1133 [74].**

Interface for Connection of Digital Instruments to a Computer Using the HP-IB Bus. *V. I. Kirillov.* **1981, No. 4, 918 [89].**

Interfacing a TV Camera to Charge-Coupled Devices for Automatic Processing of Particle Track Images. *A. Ya. Astakhov and G. M. Komov.* **1982, No. 3, 578 [64].**

An Interface for Processing Pulse Signals with Direct Memory Access in the Élektronika 60. *S. G. Goloborod'ko, V. I. In'shakov, A. P. Leonov, V. V. Popov, and E. A. Ustinov.* **1982, No. 4, 854 [66].**

Simple Interface Expander for the "Élektronika-60M" Microcomputer. *L. Ya. Ginesskii and Yu. C. Sevost'yanov.* **1983, No. 2, 308 [63].**

IEC Interface Controller Using the Élektronika-60 Microcomputers. *V. A. Liskin, N. V. Popenko, and L. S. Sitnikov.* **1983, No. 2, 318 [72].**

Direct-Access Adapter for the "Élektronika NTs-03D" Microcomputer. *A. V. Eliseenko and M. G. Sedunov.* **1984, No. 1, 99 [96].**

Serial Interface for the Iskra-1256 and Iskra-226 Computers. *V. Ya. Starodumov.* **1984, No. 2, 339 [80].**

SM-3 (SM-4) Computer Interface for Pulse Signal Processing. *I. A. Levko and V. E. Yamnyi.* **1984, No. 6, 1378 [73].**

Interface for Mössbauer Spectrometer. *V. A. Evdokimov, Yu. G. Kononov, A. S. Lobko, and A. A. Fedorov.* **1985, No. 1, 70 [70].**

Interface for Élektronika B3-21 Calculator. *I. M. Batyaev.* **1985, No. 2, 394 [122].**

Eprom-Programmer Interface Nodule for ISKRA-1256 Microcomputer. *A. V. Salabai.* **1985, No. 4, 812 [74].**

Interfacing a KR580IK80A Microprocessor with the IEC Bus. *L. A. Chugunov and A. O. Mednis.* **1985, No. 5, 1073 [78].**

Interface for Automatic Recording and Playback of Experimental Data with ES9004. *A. N. Mikikechko.* **1985, No. 6, 1319 [78].**

Universal Stepping-Motor Interface. *S. G. Basiladze and A. P. Shkurinov.* **1986, No. 1, 66 [63].**

Interfaces for Universal Branch Driver with ES Computer for Data Acquisition from BIS-2 Filmless Spectrometer. *B. N. Gus'kov, D. A. Kirillov, and A. N. Morozov.* **1987, No. 1, 69 [65].**

Direct-Memory-Access Interface for NMS-11100.1 Microcomputer. *V. V. Golubovskii.* **1988, No. 3, 600 [72].**

Attachment to Direct-Memory-Access Adapter for Image Input. *D. E. Konash.* **1988, No. 5, 1182 [82].**

Parallel Interface for Pravets-16 Personal Computer and Its Use for Communication with ES-1010 Computer in Automation System for Al'fa-3S Spectrometer. *S. A. Zaporozhets and E. V. Chernykh.* **1989, No. 2, 366 [100].**

VMEbus-Compatible Multipurpose Parallel Interface Register. *E. V. Chernykh.* **1989, No. 5, 1113 [127].**

Interface for Organization of Multicrate CAMAC Measuring System On-Line with Élektronika-60 Microcomputer. *S. I. Sitnikov.* **1991, No. 1, 107 [112].**

PCA/Incremental-Memory Interface for Analog Processors On-Line with an IBM PC-XT/AT. *Sh. Biri, V. S. Buttsev, I. Molnar, and V. N. Samoilov.* **1991, No. 4, 830 [88].**

4.6. Data transmission, communication lines

Local-Area Networks in Nuclear Physics (Survey). *V. A. Foteev.* **1986, No. 4, 763 [5].**

Fieldbus Networks and Their Standardization (Review). *A. A. Kotkov.* **1991, No. 2, 243 [18].**

Unit for Data Transmission along Two-Lead Line in CAMAC Standard. *A. I. Vasil'ev, Yu. A. Karzhavin, and N. I. Moseiko.* **1980, No. 1, 89 [93].**

Bidirectional Interface between the VT-340 Video Terminal and the "Prepamat" Paper Tape Station. *Ya. M. Damatov and N. M. Nikityuk.* **1980, No. 2, 388 [91].**

Interface Bus Cable. *S. O. Mkrtchyan and R. R. Edilyan.* **1980, No. 6, 1374 [55].**

A Control-Signal Photoreceiver. *V. G. Varzar and I. M. Gavrilov.* **1981, No. 1, 168 [160].**

Two-Wire Interface Bus for Automation of Experiments. *V. I. Kirillov.* **1983, No. 1, 58 [56].**

Modem for Digital Information Transfer via a Telephone Line. *N. Kh. Depueva, Vs. M. Dul'kin, V. M. Dul'kin, V. I. Kozintsev, A. B. Samedov, and V. V. Smirnov.* **1983, No. 2, 330 [84].**

Transmission of Digital Data over Long Twisted-Pair Lines. *V. V. Meer, V. I. Nesterov, and V. A. Yakovlev.* **1984, No. 3, 616 [93].**

Data Transfer from BÉSM-4 to ES Computer. *O. B. Tarutin.* **1985, No. 3, 603 [95].**

Regulator of Logic-Signal Propagation Delays. *Yu. D. Kotov and O. N. Romanov.* **1986, No. 4, 839 [78].**

Telemetry System for Elektronika D3-28 Microcomputer with Dispersed Experimental Stations. *G. E. Ivanchenko, S. L. Demidov, and A. V. Topalov.* **1986, No. 5, 1045 [57].**

Analog-Digital Optical Telemetry Line. *E. P. Bochkar', A. I. Zakharov, S. N. Polyakov, and V. A. Samorodov.* **1987, No. 1, 148 [134].**

Programmable Amplifiers for Computer Communications Systems. *N. V. Dmitriev.* **1987, No. 2, 307 [61].**

Transformer Digital Communication Line with Standard Components. *S. A. Varlamov.* **1988, No. 1, 82 [76].**

Simple Laboratory Local-Area Network. *V. N. Zadkov, V. N. Marchenko, and V. S. Solomatin.* **1988, No. 3, 596 [69].**

Fiber-Optic Modem for Serial Interface. *E. P. Bochkar'.* **1989, No. 1, 102 [92].**

Local Area Network for Automation of Physics Experiments. *É. G. Nymmiste, V. F. Kostyuchenko, Ya. Ya. Pruul'man, and A. É. Eénsaar.* **1989, No. 2, 351 [87].**

Determination of Minimum Permissible Rise Time by Calculation of Signal Distortion in Crate Data Lines. *K. E. Erglis.* **1989, No. 2, 357 [92].**

Interface for Élektronika D3-28 Microcomputer with Remote Measuring Systems. *S. A. Vlasov and M. G. Sedunov.* **1989, No. 3, 577 [77].**

Transmission of Common-Bus-Interface Signals up to 100 m. *A. S. Fomin and V. I. Svistun.* **1989, No. 5, 1128 [139].**

Interface for Communication between Spectrometer and Remote Computer through Internal Telephone Network. *V. V. Minin, A. G. Geist, and G. M. Larin.* **1989, No. 6, 1328 [86].**

Receiver-Transmitter for Fiber-Optic Line between Computers. *A. B. Semenov, V. M. Vatutin, P. G. Vanichkin, B. A. Shkol'nik, V. A. Serebryannyi, and L. K. Kunina.* **1990, No. 1, 100 [106].**

Eight-Channel Fiber-Optic Transceiver for Telemetry and Control Signals. *A. B. Semenov, E. S. Belyakov, and V. M. Vatutin.* **1991, No. 3, 556 [76].**

4.7. Storage devices

Construction of Buffer Store of Alphanumerical Printer. *F. G. Garipov and A. A. Babanin.* **1978, No. 2, 374 [100].**

Semiconductor Dynamic Main Memory in the CAMAC Standard. *Ya. M. Damatov, N. M. Nikityuk, and V. N. Semenov.* **1978, No. 6, 1499 [41].**

Programmer for the K556RT4 and K556RT5 Programmable Read-Only Memory Elements. *S. G. Bobkov, Yu. V. Ermolin, V. A. Kantserov, and V. B. Strigin.* **1983, No. 2, 293 [49].**

CAMAC Memory Buffer. *Vyong Dao Vi, N. I. Zhuravlev, and A. N. Sinaev.* **1984, No. 3, 586 [66].**

Memory Dispatcher for Élektronika-60M Microcomputer. *A. Yu. Chernyak.* **1985, No. 3, 606 [98].**

Buffer Storage Unit for Multivariate Data Analysis. *V. A. Kisurin and F. N. Berezin.* **1985, No. 4, 804 [66].**

PROM Programmer Module for the Élektronika-60 Microcomputer. *A. A. Kucherenko and E. I. Ponkratov.* **1986, No. 6, 1314 [70].**

Incremental-Memory Module for Spectrometric Data. *A. A. Zhukov and A. I. Myagkikh.* **1988, No. 5, 1173 [74].**

256K/1M Dual-Port Memory with Speed to 10M bytes/sec. *S. V. Golovkin, V. V. Golubev, E. N. Kozarenko, and A. B. Sheinin.* **1991, No. 4, 834 [91].**

4.8. Code conversion, decoders

Format Converter with Parity Control Using a Ring Shift Register. *I. E. Vasinyuk and A. S. Nanasyan.* **1977, No. 4, 1035 [105].**

Binary-to-Binary Coded Decimal Code Converter. *M. Sh. Guseinov, I. M. Amiraslanov, and A. M. Amirov.* **1977, No. 4, 1053 [120].**

Control of Codes of Coordinate Registers by a System of Control Generators. *M. N. Rashchinskii and E. P. Katilas.* **1978, No. 2, 350 [78].**

Converters Operating between Binary and BCD Representations. *G. N. Zimin, V. P. Perelygin, and S. P. Perelygin.* **1978, No. 2, 353 [80].**

Follow-Up Multichannel Telemetry-Signal Decoder Based on a Multiple-Valued Logic Element with Intermediate Spatial Conversion of Data. *G. V. Basalaev and Z. D. Konoplyanko.* **1978, No. 2, 365 [91].**

High-Speed Frequency–Time Code Discriminator. *E. E. Gofman, N. V. Kirianaki, and I. N. Les'kiv.* **1978, No. 3, 672 [115].**

Binary to Binary–Decimal Code Converter. *Ya V. Buchinskii, S. A. Piskun, and A. A. Stolyarov.* **1978, No. 5, 1264 [100].**

Logarithmic Converter of Binary Numbers. *A. N. Volgin, A. V. Vygovskii, and V. A. Domin.* **1978, No. 6, 1507 [48].**

Device for Converting Sequential Code into Gray Code. *A. I. Gonchar and V. R. Trubnikov.* **1979, No. 6, 1550 [67].**

Binary to Binary-Coded Decimal Converter for Digital Output. *É. S. Belyakov.* **1980, No. 3, 632 [86].**

Serial-Parallel Code Converter. *V. P. Martsenyuk, A. G. Dychko, and G. A. Milushkin.* **1981, No. 1, 87 [85].**

A Multidimensional Sensor Number-Code Converter with Data Selection and Compression. *M. I. Skopyuk and V. A. Shevchenko.* **1981, No. 2, 401 [106].**

Four-Bit to Seven-Segment Decoder for Displaying Hexadecimal Characters. *S. I. Gustokashin and B. P. Shcherbakov.* **1981, No. 2, 412 [117].**

Unitary-to-Serial-Binary Code Converter. *V. V. Volovskii.* **1981, No. 3, 651 [84].**

Device for Converting Parallel Gray Code into a Pulse Sequence. *A. I. Gonchar, V. S. Nesterenko, V. A. Fazkullin, P. V. Vyrodov, and A. S. Kruglov.* **1981, No. 5, 1200 [98].**

Multibit Binary to Binary-Coded-Decimal Decoder. *A. I. Sklyarenko, D. G. Popov, A. N. Strenin, and V. I. Artsev.* **1982, No. 2, 360 [76].**

Pulse-Flux Converters. *A. A. Eremina and I. D. Shilina.* **1983, No. 2, 336 [90].**

Direct Conversion of Binary Code to Duodecimal and Duodecimal Code to Binary. *V. S. Ogarkov and Yu. G. Tikhonov.* **1983, No. 4, 863 [112].**

Unitary-to-Binary Converter with Asynchronous Control. *N. M. Nikityuk, V. N. Samoilov, and R. Shyussler.* **1984, No. 2, 328 [69].**

Converter of Seven-Segment Code to Binary-Decimal and Binary. *N. P. Leonov and I. V. Semerkov.* **1984, No. 2, 333 [74].**

General-Purpose Code Converter. *M. O. Gingis.* **1984, No. 4, 878 [85].**

Binary-To-Morse Code Converter. *V. S. Govorov.* **1985, No. 6, 1328 [86].**

4.9. Computer interfacing of experimental apparatuses

Register Mechanism for a Semiautomatic Measuring Instrument for Reduction of Camera Photographs. *B. N. Semenov.* **1977, No. 4, 1024 [93].**

Coupling of the "Élektronika 70" and "Élektronika T3-16" Small Computers with External Devices. *A. B. Chaplygin, M. V. Vedernikov, and A. T. Burkov.* **1978, No. 4, 927 [85].**

Interfacing the MIR-2 Computer with Experiments. *V. M. Popov.* **1979, No. 5, 1290 [96].**

Fast Entry of Experimental Data into Nairi-K Computer. *A. P. Zakharnev, P. P. Ivanov, and A. Ya. Chukhnin.* **1981, No. 1, 76 [74].**

Data Acquisition System for "Gneis" Neutron Time-of-Flight Spectrometer. *A. A. Afanas'ev, V. P. Grigor'ev, V. V. Marchenov, Yu. V. Tubol'tsev, and O. A. Shcherbakov.* **1981, No. 2, 373 [80].**

Device for Coupling a Digital Voltmeter to a Minicomputer. *B. K. Kulidzhanov.* **1981, No. 2, 381 [89].**

A Simple Circuit for Inputting Data from a UNO-4096-90 Preprocessor to an ES-1010 Computer. *A. B. Tyugin, V. V. Gavrilin, and A. V. Irodova.* **1981, No. 6, 1394 [59].**

Device for Interfacing Digital Instruments with the Élektronika B3-21 Calculator. *S. V. Denbovetski, A. N. Shkuro, S. M. Kokoshkin, and V. A. Svyatnenko.* **1982, No. 1, 85 [81].**

The AI-1024-4 in Data Acquisition and Storage. *M. G. Chaikovskii and A. E. Glagolev.* **1982, No. 3, 583 [68].**

Interfacing the AI-4096 Multidimensional Analyzer to the Nairi-K Computer. *A. P. Zakharnev and N. B. Malevannaya.* **1982, No. 5, 1111 [65].**

Interfacing a Transit-Time Mass Spectrometer to a Minicomputer. *F. Ya. Gimel'shein, V. A. Ermolenko, and A. N. Mikheev.* **1982, No. 5, 1115 [69].**

Interface for MIR-2 Computer and Bruel & Kerr 3348 Spectrum Analyzer. *N. A. Fefelov and A. B. Chilikin.* **1983, No. 1, 67 [64].**

Interface for Input of Digital Information from the Ch3-38 Frequency Meter to the ES-1022 Computer. *V. S. Batrachenko, V. A. Mal'tsev, and O. M. Molokoedov.* **1983, No. 3, 582 [83].**

Automation of MI-1320 Mass Spectrometer Ion Current Measurements. *A. A. Gol'din, Yu. A. Isakov, A. Z. Liberman, and V. V. Manoilov.* **1983, No. 4, 833 [84].**

Interfacing the Élektronika D3-28 Microcomputer to Digital Measurement Equipment. *N. S. Perov.* **1983, No. 4, 844 [94].**

Interface for the JRA-5 and SM-3 Computers in an Automated Electron Paramagnetic Resonance Spectrometer. *A. M. Avrutik, G. F. Boronin, A. V. Davydov, I. A. Ishmuratov, A. P. Karpenko, V. V. Kveder, and A. L. Lopatin.* **1983, No. 5, 1075 [70].**

A/D Converter-D3-28 Microcomputer Interface. *V. S. Danilyuk, Yu. V. Zelenev, and O. F. Belyaev.* **1983, No. 6, 1309 [56].**

Interface for the IKS-29 Spectrophotometer and KSVU-2 Computer System. *A. I. Gren', A. A. Kucher, and N. V. Vityuk.* **1984, No. 1, 97 [94].**

Interfacing a V9-5 Sampling Voltage Converter to an Élektronika D3-28 Microcomputer. *É. P. Snegirev.* **1984, No. 3, 592 [72].**

Communications Interface for the Élektronika D3-28 Microcomputer and Experimental Equipment. *Yu. D. Afonin, V. N. Shalaginov, and A. R. Beketov.* **1984, No. 6, 1374 [70].**

Interfacing F4222 Analog Digital Converter with 15IPG32-003 Computer Complex. *M. V. Grinberg and P. E. Nazarov.* **1985, No. 1, 66 [66].**

Four-Channel Digital-to-Analog Converter Module Using an "Élektronika-60" Microcomputer. *A. V. Vishnevskii, A. P. Latyntsev, and V. G. Cherepanov.* **1985, No. 1, 84 [84].**

Device for Transfer of Data from an LP4840 Multichannel Analyzer to an "Élektronika D3-28" Computer. *M. B. Breslav-Maslennikov, A. G. Dutov, A. N. Igumentsev, and Yu. I. Sudak.* **1985, No. 1, 90 [89].**

Linking of an "Élektronika D3-28" Microcomputer to V7-16 Digital Voltmeters for Simultaneous Measurement of Several Process Parameters. *M. S. Kosilov, S. P. Slukhaevskii, A. G. Bocharov, and N. S. Kosilov.* **1985, No. 1, 93 [92].**

Interfacing AI-256-6 Pulse Analyzer with Élektronika-60 Microcomputer. *V. V. Abarikhin and S. G. Shmelev.* **1985, No. 2, 338 [69].**

Astrophotometer-Microcomputer Communication Unit. *S. A. Zolotoi and S. V. Kholondyrev.* **1985, No. 4, 790 [54].**

Interface for Peripherals of D3-28 Computer with Élektronika-60 Computer. *A. V. Ermakov and D. V. Togatov.* **1985, No. 5, 1076 [81].**

Microcomputer Interface for Amplitude Analyzer. *A. V. Vasil'ev and V. K. Eremin.* **1986, No. 3, 619 [101].**

Interfacing of NTA-512 Multichannel Analyzer with Élektronika-100I Minicomputer. *T. S. Gurachevskaya, V. L. Gurachevskii, and Ya. Khula.* **1986, No. 5, 1056 [67].**

Interface for 15VSM-5 and Élektronika D3-28 Minicomputers with Digital Measuring Instruments. *N. A. Udovichenko, Yu. I. Polikarpov, and B. V. Makushkin.* **1987, No. 1, 84 [79].**

Interface for Digital Voltmeter with Élektronika D3-28 Computer. *V. V. Bobrovskii, S. G. Komissarov, and F. V. Tikhonov.* **1987, No. 3, 577 [75].**

Universal Device for Interfacing a Kh6-4 Correlator to an Élektronika D3-28 Microcomputer. *S. M. Burkitbaev, A. I. Pak, and A. B. Kenzhebaev.* **1987, No. 6, 1349 [67].**

Interface Unit for Kh6-4 Correlation Meter with Élektronika D3-28 Microcomputer. *O. M. Kinskii, N. P. Kotov, and R. G. Iskanderov.* **1988, No. 4, 876 [49].**

Interface for S7-9 Sampling Oscilloscope with Élektronika D3-28 Microcomputer. *R. A. Bagautdinov, Kh. G. Bogdanova, and D. Sh. Idiatullin.* **1988, No. 5, 1180 [80].**

Interface for NTA-1024 and AI-1024 Analyzers with Élektronika-60 Computer. *L. N. Vasilevich, F. A. Ermalitskii, M. Yu. Selyaninov, V. V. Revinskii, and A. F. Chernyavskii.* **1989, No. 1, 95 [85].**

Interface for Image Signals between Television System of Scanning Electron Microscope and Microcomputer. *A. A. Kamalyagin and É. R. Égipti.* **1989, No. 1, 98 [88].**

Interface Unit for Data Transfer from AI-1024 Multichannel Analyzer to Iskra-226 Computer. *M. B. Bukhman, I. M. Kuznetsova, and K. K. Turoverov.* **1989, No. 2, 369 [102].**

Interfacing AI-1024 Analyzer with Élektronika-85 Personal Computer. *V. K. Baturin and A. Yu. Chernyak.* **1990, No. 6, 1417 [171].**

Parallel-Output Device for Digital Data in KOP Standard. *E. I. Tunik.* **1991, No. 1, 109 [114].**

Data Transmission from DRON-2 X-Ray Diffractometer to Computer. *V. G. Abramov, N. A. Monov, V. F. Sazonov, and E. A. Chernomorskaya.* **1991, No. 2, 334 [97].**

Common-Bus Interface Units. *V. L. Tsymbalenko.* **1991, No. 4, 837 [94].**

4.10. Computer input of signals

Pulse-Data Input Unit for a Nairi-2 Computer. *Yu. V. Inyutin and V. I. Poltinnikov.* **1977, No. 5, 1315 [77].**

Input of Experimental Data into the Nairi-2 Computer. *A. V. Zhuk and M. I. Tsema.* **1978, No. 3, 645 [90].**

Feeding of Data from an Analog-to-Digital Converter to an M-6000 Computer. *A. M. Kalashnikov and A. K. Sheremet'ev.* **1978, No. 3, 652 [96].**

Information Input Unit for the "Iskra-1122" Electronic Keyboard Computer. *N. A. Filin and A. V. Trofimov.* **1978, No. 4, 930 [87].**

Organization of a System for Continuous Input of Experimental Data on Rapid Processes into the BÉSM-4M Computer. *Yu. N. Raspopov, I. S. Shevchenko, and Yu. T. Neporozhnii.* **1978, No. 5, 1243 [82].**

Installation for the Input of Experimental Information in the "Mir-2" Computer. *V. A. Alekseev, N. I. Kalyadin, and É. I. Chubashov.* **1978, No. 5, 1247 [85].**

Input of Two Information Streams from Independent Sources into an Electronic Computer. *V. V. Pechenin, A. A. Chumachenko, and V. I. Shul'gin.* **1979, No. 1, 75 [73].**

Improved Data Interface for the Nairi-2. *A. V. Zhuk.* **1979, No. 5, 1297 [102].**

Device for the Input of Video Information into an Electronic Computer. *V. P. Andreev and G. G. Vainshtein.* **1979, No. 5, 1300 [106].**

Analog Signal Input to the "Promin'-2" Computer. *V. M. Griko, V. M. Tkachev, and V. P. Khoroshilov.* **1980, No. 2, 380 [85].**

Direct Entry of Microstructure Image Analyzer Signals into the Minsk-32 Computer. *É. M. Kurashov, O. L. Barbash, S. P. Nekrasov, and V. M. Fedorov.* **1981, No. 1, 71 [69].**

Device for Inputting Digital Data from Frequency Meters to an "Iskra-123" Computer. *A. S. Besedin, V. D. Krasovskii, and V. S. Mal'tsev.* **1981, No. 4, 915 [86].**

Interfacing Digital Instruments with the Élektronika B3-21 Calculator. *V. I. Sagaidak and Yu. M. Shcherbak.* **1981, No. 5, 1179 [78].**

Device for Image Input to an ES Computer. *N. A. Kryukova, L. T. Kunitsyna, and A. A. Stoyanovskii.* **1982, No. 2, 335 [53].**

Software-Controlled Analog Signal Input to a Nairi K Computer. *R. A. Bogoroditskaya, G. L. Vitel's, V. G. Dolomanov, and Yu. I. Shul'meister.* **1982, No. 3, 574 [60].**

A Device for Inputting Analog Signals to a Nairi 3-1 Computer. *P. G. Kuznetsov and N. M. Nikiforova.* **1982, No. 4, 849 [63].**

Analog Input Circuit for the Élektronika D3-28 Microcomputer. *A. I. Antonevich, V. V. Butskii, V. F. Mikolenko, and I. L. Natanson.* **1982, No. 5, 1121 [74].**

Programmable Analog-to-Digital Conversion System for the "Élektronika NTs" Microcomputer. *A. V. Vardugin, V. F. Pashuk, Yu. A. Popkov, and A. A. Tkachenko.* **1983, No. 2, 291 [47].**

Static Image Input Circuit for the Nairi-4 Computer. *G. M. Emel'yanov, and M. V. Mart'yanov.* **1983, No. 2, 312 [67].**

Direct Input of Data from the F014 Graphics Converter to the Élektronika D3-28 Computer. *R. M. Rakhimov, N. I. Konovalov, and A. I. Fishman.* **1983, No. 2, 316 [71].**

Analog Input Technique for Microcomputers. *O. E. Averchenkov and K. I. Sviridenkov.* **1983, No. 2, 323 [77].**

Data Input Interface for "Élektronika S5" Microcomputers. *F. F. Bagautdinov and A. I. Ermishev.* **1983, No. 3, 580 [81].**

Digital Input/Output Interface for the Élektronika D3-28 Computer. *A. A. Zhukov and V. I. Slynchenko.* **1983, No. 5, 1081 [75].**

Analog-Digital Converter and Data Input Circuit for Minicomputers. *A. Yu. Sasov.* **1983, No. 5, 1086 [79].**

High-Speed Data Input Circuit for the Élektronika-60 Computer. *N. P. Beketov and G. S. Ratanov.* **1983, No. 5, 1089 [82].**

Device for Inputting Analog Data to a Microcomputer. *O. E. Averchenkov.* **1983, No. 6, 1328 [72].**

Device for Inputting Periodic Analog Signals to an Élektronika D3-28 Microcomputer. *G. N. Deshchenko, V. S. Dragun, and I. S. Pankov.* **1984, No. 3, 589 [69].**

Device for Input of Frequency Signals for Microprocessor Systems. *A. V. Klement'ev, V. S. Gutnikov, and S. A. Miranyan.* **1985, No. 1, 88 [87].**

Bidirectional Angle-to-Digit Converter. *V. N. Bulanov and K. A. Aleksandrov.* **1985, No. 1, 256 [229].**

Use of One-Shot Multivibrators for Microcomputer Analog-Data Input. *I. I. Dubrovskii, V. V. Kafarov, and L. N. Finyakin.* **1986, No. 2, 366 [93].**

Control of Data Characteristics of Photodetector Based on Charged-Coupled Device for Image Input to Computer. *S. A. Molodyakov.* **1987, No. 3, 572 [71].**

Television Device for Computer Graphics Input. *V. G. Dement'ev, Yu. Yu. Dudin, and S. A. Pendyur.* **1988, No. 1, 79 [74].**

Automatic Program Loader for Élektronika MK-64 Pocket Calculator. *V. F. Telegin and V. N. Bizyaev.* **1988, No. 3, 613 [83].**

Analog Input Device. *V. V. Atroshchenko, R. Kh. Gantsev, and A. V. Mel'nikov.* **1988, No. 6, 1468 [89].**

Image-Input Device for Digital Television X-Ray Topographic Apparatus. *A. A. Khazanov, F. N. Chukhovskii, and B. V. Shteinbakh.* **1990, No. 3, 567 [85].**

4.11. Recording and display devices

Apparatus for Readout of Information in Binary Code for an Electronic Computer to Microfilm. *Yu. L. Kravchenko, G. M. Mamontov, A. K. Potashnikov, and V. N. D'yakonov.* **1978, No. 4, 933 [90].**

Improved Economy in Recent Recording Systems. *A. G. Grachev.* **1981, No. 3, 637 [72].**

Electrooptical Analog Signal Register. *V. M. Lekomtsev, V. P. Mikheev, and B. S. Rozov.* **1981, No. 4, 1079 [237].**

Data-Acquisition and Recording System. *A. K. Kozorez.* **1982, No. 6, 1360 [45].**

Automatic Measuring-Limit Selector. *V. E. Arutyunov, Ch. O. Kadzhar, and E. Yu. Salaev.* **1982, No. 6, 1518 [182].**

Device for Read-Out of Numerical Information. *A. N. Strenin and A. I. Sklyarenko.* **1983, No. 5, 1091 [84].**

Frame Counter for Photographic Recording Attachments. *A. V. Lomash and P. V. Trufanov.* **1986, No. 6, 1458 [196].**

System for Digital Image Recording and Reproduction. *S. G. Basiladze, A. G. Nikolaev, V. V. Petrovskii, V. M. Rybnikov, and Yu. D. Shchukin.* **1991, No. 3, 546 [67].**

Data Recorder. *V. P. Vlasov and A. V. Ermolenko.* **1991, No. 4, 820 [78].**

4.11.1. Displays

Display for Data Output in Physical Experiments. *V. M. Aul'chenko, Yu. V. Korshunov, and G. G. Melekhov.* **1977, No. 1, 78 [72].**

Indicator-Setting Operator Terminal. *A. Kh. Angelov and V. D. Inkin.* **1977, No. 2, 413 [77].**

M-6000 Display for Spectrum Reduction. *A. M. Kalashnikov, I. Yu. Petrov, and A. R. Sheremet'ev.* **1979, No. 1, 74 [72].**

Hookup of VT-340 Display as Operating Panel of "Élektronika-100/16I" Computer. *N. I. Konov.* **1979, No. 4, 1002 [118].**

Device for Forming Symbols on Screen of Television Display Unit. *V. M. Kirpichnikov and V. P. Khoteev.* **1979, No. 4, 1006 [121].**

A Writing and Erasing Unit for a Liquid-Crystal Controlled Transparency. *P. I. Kolennikov and A. V. Guk.* **1980, No. 1, 92 [96].**

General-Purpose Data Input/Output Circuit for 15VSM-5 Control Computers. *R. P. Syromyatnikov, L. A. Pigarev, and V. M. Shestakov.* **1980, No. 5, 1127 [68].**

Generator of Standard TV Synchropulses for Video-Monitoring Systems. *T. S. Suleimanov and B. I. Ismailov.* **1981, No. 2, 375 [82].**

Display Drive with Dynamic Storage-Based Refresh. *B. Yu. Baldin, V. G. Rybakov, and A. N. Sytin.* **1981, No. 4, 910 [81].**

Using the RIN-609 Video Terminal as a Controller for the Élektronika-60 Microcomputer. *V. P. Lyashev, M. V. Tskhvaradze, and A. L. Chkhenkeli.* **1982, No. 5, 1119 [72].**

Use of BPS-75 + "Élektronika-100I" Scanning-Measuring System for Analysis of Photographs from Wire-Gap Spark Chambers. *S. A. Averin, G. V. Veselova, and G. V. Navasardyan.* **1982, No. 6, 1368 [52].**

Interfacing a Microcomputer and Oscilloscope for Alphanumeric Information Display. *O. E. Averchenkov.* **1982, No. 6, 1373 [56].**

Interface for Data Output to a Punched Tape. *A. F. Ogloblin, E. N. Andryashin, and S. P. Muzalev.* **1983, No. 2, 305 [61].**

Graphics Display for D3-28 Minicomputer. *A. V. Ermakov and D. V. Togatov.* **1983, No. 4, 838 [89].**

Use of Standard CAMAC Modules for Interfacing Videotone-340 Terminals to a Computer Complex. *É. V. Vardidze and S. A. Shrabshtein.* **1983, No. 4, 841 [92].**

Interfacing the Élektronika K1-10 Microcomputer and the RIN-609 Video Terminal Unit. *A. L. Gurtovtsev, M. E. Gurchik, and A. N. Drennov.* **1983, No. 5, 1084 [77].**

Modernization of the Videotone-340 Terminal and Videotone-343 Printer for Use with a Remote Computer. *A. M. Schastlivtsev.* **1983, No. 5, 1096 [88].**

Halftone Digital Display. *O. V. Filonin and K. V. Ovchinnikov.* **1983, No. 5, 1100 [91].**

Graphics Adapter for Raster Digital Display. *V. D. Bakhmatskii, V. G. Belyi, S. M. Bol'shinskii, L. G. Oranskii, and A. N. Poltava.* **1984, No. 2, 311 [53].**

Operator-Computer Interface in the Observation of Three-Dimensional Television Images. *G. V. Mamchev and P. P. Ovsyannikov.* **1984, No. 2, 315 [58].**

Using the VT-340 (VDT-52100) Terminal as a Controller for the "Élektronika 100-25" Computer. *N. M. Koshechko.* **1984, No. 3, 601 [80].**

Interfacing the "Élektronika-60" Microcomputer to the VTA-2000 Terminal and "Élektronika D3-28" Microcomputer. *Ya. S. Zaishlyi, V. R. Kravtsov, and Yu. B. Shebivovk.* **1984, No. 3, 603 [82].**

Controller for Screen Display of Dynamics of Measured Process. *Yu. V. Chugunov and A. Ya. Ksenzenko.* **1984, No. 5, 1126 [74].**

Oscilloscope Interface for SM-4 Computer. *V. F. Salokhin and S. V. Sedakov.* **1985, No. 4, 810 [72].**

Device for Display of Vectors on Cathode-Ray Tube from Data in Machine Code. *V. S. Govorov, S. K. Babeiko, and A. A. Bondarets.* **1988, No. 4, 885 [56].**

4.11.2. Magnetic recorders, magnetic-tape storage

System for Reproducing Pulse-Width Signals from a Magnetic Film. *É. G. Mirzabekyan, R. G. Simonyan, and A. M. Gevorkyan.* **1977, No. 2, 423 [86].**

Analog-Signal Recording on Magnetic Tape and Deformation Input into the BÉSM-4 Recorder. *V. A. Alimov, V. N. Varganov, V. S. Karavanov, A. V. Rakhlin, and Yu. G. Tikhonov.* **1977, No. 3, 689 [73].**

Device for Experimental Data Based on a Narrow-Tape Recorder. *S. K. Malyshev, V. M. Demarev, I. A. Makeeva, S. P. Chekalev, and I. I. Shishenko.* **1978, No. 2, 368 [94].**

New Method of Digital Magnetic Recording. *A. A. Karlov and S. P. Perelygin.* **1978, No. 2, 371 [97].**

Device for Interfacing of a Common Magnetic Recorder with an Electronic Computer. *A. Ya. Galata and Ya. M. Zlotnikov.* **1978, No. 3, 656 [100].**

Three-Channel Device for Accurate Magnetic Registration of Infralow-Frequency Analog Signals. *M. A. Ganapetyan.* **1980, No. 3, 634 [88].**

Video Signal Recording with the "Élektronika L1-08" Video Tape Recorder. *I. V. Peretyagin and B. I. Poronik.* **1980, No. 3, 646 [98].**

Videotape Recording and Editing of Experimental Data in Automatic Data Acquisition and Processing Systems. *Yu. N. Raspopov, I. S. Shevchenko, and S. N. Kovalev.* **1980, No. 5, 1124 [65].**

System for Code-Marking Magnetic Tape. *S. V. Elizarov, V. R. Fokin, and T. A. Pavlyuchenko.* **1981, No. 1, 90 [88].**

Device for Transfer of Digital Data from an "Astra-NZM" Type Recorder to a Single-System Computer. *N. A. Kryukova, L. T. Kunitsyna, and A. A. Stoyanovskii.* **1981, No. 3, 646 [80].**

Multichannel Recording-Level Indicator. *N. S. Bokancha, V. N. Skorobogatov, and Yu. P. Yurchenko.* **1983, No. 1, 122 [105].**

Device for Interfacing a Radar Station to a Digital Magnetic Recorder. *A. A. Belokurov and L. A. Gavrikov.* **1983, No. 3, 618 [116].**

Magnetic Tape Storage for the Élektronika-60 Microcomputer. *Yu. N. Shcherbich, V. I. Antonov, S. A. Zoloti, and S. V. Kholondyrev.* **1983, No. 4, 836 [87].**

Automatic Data Acquisition on Magnetic Tape Using an ES-9002 Recorder. *S. S. Shershnev, N. V. Sirenko, and Yu. P. Tugaenko.* **1983, No. 5, 1068 [65].**

Recorder for High-Speed Processes Based on a "Saturn 505 Video" Video Recorder. *S. V. Sorvirog.* **1983, No. 6, 1346 [88].**

Recording Digital Data with a Home Cassette Recorder. *A. P. Pecherskikh and S. A. Larionov.* **1985, No. 2, 405 [131].**

Cassette-Recorder Acquisition of Monitored-Process Data. *A. Ya. Ksenzenko and Yu. V. Chugunov.* **1985, No. 4, 798 [61].**

Adaptation of N062 and N046 Tape Recorders for Use in Automated Systems. *V. V. Onis'ko.* **1987, No. 6, 1479 [179].**

Modem for Recording and Playback of Digital Data on Magnetic Tape. *M. I. Grodzinskii, V. L. Stryuch, and V. I. Beloded.* **1990, No. 6, 1309 [80].**

4.11.3. Plotters, recorders

Scan-Velocity Transducer for Driven-Sweep Generator. *O. M. Sorokin and B. D. Matsoyan.* **1977, No. 2, 493 [149].**

Universal Photoelectric Graduation Detector. *A. I. Usoskin and K. A. Katrunov.* **1979, No. 5, 1451 [238].**

Device Interfacing a Desktop Computer with an Analog Two-Coordinate Automatic Printer. *A. T. Burkov.* **1980, No. 3, 621 [76].**

Graphical Output Device for the "Nairi-K" Computer. *A. P. Zakharnev, P. P. Ivanov, and A. Ya. Chukhnin.* **1980, No. 4, 885 [75].**

Producing Two-Speed Operation of Induction Motors for Recorders. *V. N. Ordinartsev, V. N. Faminskii, and O. S. Shvedov.* **1981, No. 3, 801 [220].**

Device for Outputting Data from a 15VSM-5 Computer to a Plotter. *V. A. Dobrynin and I. A. Shikoryak.* **1982, No. 1, 93 [88].**

Timer for the N338 Automatic Printer. *V. I. Omel'chenko and S. E. Shvagerus.* **1982, No. 2, 512 [209].**

Data Output from an M-4030 Computer to a "Pallada" Phototelegraph Apparatus. *S. F. Zagorodnii, A. L. Zaitsev, V. I. Kaevitser, V. P. Sinilo, and L. I. Sinitsina.* **1982, No. 6, 1381 [64].**

Interfacing the Élektronika D3-28 Computer to an Analog X-Y Plotter. *A. A. Zhukov.* **1983, No. 1, 65 [63].**

Output of Graphics Data from the "Élektronika D3-28" Computer. *S. Ya. Shevchenko, L. A. Mitrofanova, and A. M. Chukarev.* **1983, No. 6, 1330 [74].**

Use of the P136M dc Voltage Regulator for Automatic Recording of Current-Voltage Characteristics. *A. T. Dideikin.* **1985, No. 1, 250 [224].**

Computer Plotter-Reader. *V. V. Evseev and Ya. M. Mukovskii.* **1985, No. 3, 608 [99].**

N-306 Plotter in Conjunction with SM-1 Control Computer Complex. *N. P. Barabanov, M. R. Zavadskii, B. P. Sabanin, and G. M. Trubacheev.* **1985, No. 4, 815 [76].**

Computer Output to RDD-1 Plotter. *S. D. Solnushkin and V. N. Chikhman.* **1985, No. 5, 1078 [83].**

Facsimile Output Device for ES Computer. *L. T. Kunitsyna, A. A. Stoyanovskii, and L. P. Kharin.* **1985, No. 6, 1325 [83].**

Use of N338-4P High-Speed Recorder for Mass Spectra. *I. G. Litvinenko and A. P. Andreev.* **1986, No. 4, 960 [185].**

Output of Half-Tone Images from SM Computer to Format-PS Facsimile Receiver. *V. V. Ananchenko, S. V. Polishchuk, and A. V. Stolyarenko.* **1988, No. 6, 1599 [196].**

Mark Generator for Chart Recorder of Signals from Digital Measuring Instruments. *V. V. Bichevin.* **1990, No. 2, 466 [209].**

4.11.4. Tape punches

Puncher Attachment for F595KM Transcriber. *M. M. Grudinin and P. A. Koval'.* **1977, No. 3, 702 [85].**

Device for Recording Digital Voltmeter Readings on to Punched Tape. *P. D. Batakovskii, V. A. Maksimovich, and G. M. Trostyanskii.* **1977, No. 4, 1037 [106].**

Device for Outputting Information from Digital Devices onto a Punched Tape. *G. I. Bazarov.* **1979, No. 3, 721 [100].**

Interface Charts Conforming to IEC Standards for a Punch Card Machine and Photographic Reader. *A. N. Domaratskii, S. N. Domaratskii, V. A. Liskin, N. V. Ponenko, and L. S. Sitnikov.* **1979, No. 4, 993 [109].**

Device for Outputting Data from an AI-1024 Analyzer to a Puncher. *A. M. Kalashnikov, I. Yu. Petrov, and A. K. Sheremet'ev.* **1979, No. 6, 1552 [68].**

Reading Information from the NTA-512V Analyzer to the PL-80 Tape Punch. *I. I. Gainish and A. A. Teke.* **1980, No. 2, 389 [93].**

Control of a PL-150 Tape Punch with a BZ-17-3A Punch Unit. *I. I. Gainish, M. V. Goshovskii, and A. A. Teke.* **1980, No. 6, 1514 [179].**

Interfacing the SP-3 Optical Tape Reader to the "Élektronika-60" Microcomputer. *V. I. Antonov, S. A. Zolotoi, and S. V. Kholondyrev.* **1982, No. 6, 1372 [55].**

Data-Output Device for PL-80 and PL-150 Tape Punches. *O. S. Maksumov.* **1982, No. 6, 1377 [60].**

Interfacing the SP-3 Tape Reader to the "Élektronika-60" Microcomputer. *V. A. Sasunkevich and I. A. Kochkov.* **1984, No. 3, 595 [75].**

4.11.5. Data printout

Recording Auxiliary Information with B3-15 Digital Printers. *A. I. Efimenko.* **1978, No. 2, 377 [103].**

Matching Device for F5033 Transcriber for Simultaneous Recording of Data on an ÉUM-23D Typewriter and UVL-75/20-1 Tape Puncher. *I. I. Barbetov and V. I. Polyubin.* **1978, No. 2, 378 [104].**

Linkage of High-Speed Analog-Digital Converter with the F5033K Number Printer. *G. G. Bondarovich, N. A. Sokolova, and V. G. Tsyvinskii.* **1978, No. 4, 936 [93].**

Matching Circuit for Ch3-34A Frequency Meter and F5033 Transcriber. *D. P. Burtovoi and A. P. Klochko.* **1981, No. 1, 89 [87].**

Simultaneous Recording of the Readings of Two Digital Measuring Instruments with the Shch68000K Printing Instrument. *V. M. Pudalov, S. G. Semenchinskii and A. K. Yanysh.* **1981, No. 1, 169 [161].**

Data Output from Keyboard Computer to Digital Printer. *A. S. Besedin, V. D. Krasovskii, and V. S. Mal'tsev.* **1981, No. 4, 921 [92].**

An Updated F250 Transcriber. *Yu. N. Nazarov.* **1981, No. 5, 1312 [198].**

Output of Data to an ATsPU-128 Printer from the "Pion" Experimental Setup Using a "Nairi-2" Computer. *V. V. Avakyan and D. S. Oganezova.* **1981, No. 6, 1393 [58].**

Interface for Output of Digital Information-to the TR-1894 Thermal Printer from the 15VCM-5 and "Élektronika D3-28" Computers. *N. P. Ovchinnikov and É. A. Chernoritskii.* **1982, No. 1, 91 [87].**

Interfacing the Élektronika-100/I Computer and the Shch68000K Printer. *V. D. Bakhmatskii, V. G. Belyi, S. M. Bol'shinskii, and L. G. Oranskii.* **1983, No. 2, 310 [65].**

Interface for Read-Out of Numerical Information to a Shch68000K High-Speed Printer from an "Élektronika D3-28" Computer. *S. G. Taluts and S. A. Il'inykh.* **1983, No. 5, 1094 [86].**

Interfacing the VDT 52106 Video Terminal and DZM-180 Printer with the Élektronika-60 Microcomputer. *V. A. Dolgikh, I. V. Stupenkov, and V. G. Shinakov.* **1984, No. 2, 335 [77].**

Interfacing an F595 Transcriber to an F5007 Counter. *O. I. Pilipyuk and I. T. Trofimenko.* **1984, No. 3, 596 [76].**

Interfacing an Élektronika K1-10 Microcomputer to a DARO-1156 Alphanumeric Printer. *S. V. Gudymenko, A. L. Gurtovtsev, M. E. Gurchik, and V. G. Kholyavenko.* **1984, No. 3, 606 [85].**

Controller for Interfacing the Élektronika D3-28 Microcomputer to the MT1016 Numeric Printer. *A. A. Abyzov and V. V. Pakhomov.* **1984, No. 4, 869 [78].**

Interface for K484/2 Digital Measuring System with MPU 16-3 Compact Printer. *V. B. Tyapkin.* **1984, No. 5, 1128 [76].**

Linking of the "Élektronika D3-28" computer to the EUM-23 Printer. *V. V. Bonch-Bruevich, A. V. Stepanov, and I. V. Yaminskii.* **1985, No. 1, 96 [95].**

Display-to-Printer Data-Block Output Port. *A. V. Isakov and Yu. S. Trofimov.* **1985, No. 2, 391 [119].**

Controller for Electric Typewriters. *E. M. Khaikin.* **1988, No. 5, 1325 [194].**

4.11.6. Digital data display

Digital Readout Unit for Use with Double Interrogation Method. *V. M. Kirpichnikov and V. A. Sklyarov.* **1977, No. 2, 426 [89].**

Control Devices for Digital Indicating Lamps. *Ya. V. Buchinskii and A. A. Stolyarov.* **1977, No. 5, 1349 [105].**

Economical Control Circuit for Light-Emitting Diode Indicator. *A. A. Sviyazov.* **1978, No. 6, 1578 [109].**

Digital Display Unit of CAMAC Crate. *N. I. Zamyatin and D. A. Smolin.* **1979, No. 2, 397 [101].**

Decoder for 7-Segment Indicators with Minimum Number of Elements. *V. Yu. Kapustin and O. I. Nikolaichuk.* **1979, No. 2, 514 [205].**

Control Circuit for Electroluminescence Display Unit. *O. I. Nikolaichuk.* **1980, No. 3, 640 [93].**

Dynamic-Display Device for Seven-Segment Indicators. *A. I. Ermishev, A. M. Khakimov, and F. F. Bagautdinov.* **1980, No. 6, 1515 [180].**

Recording of Data Readings from Several Counters on One Indicator. *S. U. Klimovich and G. S. Zolotareva.* **1981, No. 1, 171 [164].**

Circuit for Control of Seven-Segment Electroluminescent Indicators. *Ya. L. Gesin and G. A. Korotkevich.* **1981, No. 4, 938 [109].**

Circuit for Dynamically Driving Seven-Segment Display Devices. *Ya. L. Gesin and G. A. Korotkevich.* **1982, No. 1, 255 [223].**

Multichannel Indicator on the Control Panel of a Physics Facility. *V. G. Mikhailov, V. A. Rezvov, and L. I. Yudin.* **1982, No. 3, 663 [138].**

Interfacing the Élektronika-60 Microcomputer with Character Displays. *V. V. Sorochinskii and Yu. N. Kholodenko.* **1984, No. 2, 337 [78].**

Data Display for Apparatus with Built-In Monitor. *V. S. Govorov and A. F. Mironov.* **1985, No. 4, 892 [144].**

Dynamic Controlled for Seven-Segment Vacuum Fluorescent Displays. *S. N. Lekhin and S. V. Tarasenko.* **1985, No. 6, 1461 [199].**

Interface for F5095 Indicator with Élektronika D3-28 Minicomputer. *A. A. Ivanov, N. D. Mostovoi, and V. F. Peklun.* **1987, No. 1, 221 [202].**

4.12. Timers, programmable devices

Computer-Controlled Digital Synthesizer of Intervals. *V. I. Ivanov and I. A. Malevich.* **1977, No. 1, 81 [75].**

Quadruple CAMAC Universal Timer. *S. G. Basiladze and A. N. Parfenov.* **1977, No. 1, 91 [83].**

Digital Electronic Time Delay Relay. *P. I. Malii, A. I. Solov'ev, and V. S. Shchepin.* **1978, No. 1, 122 [121].**

Broadband Time Relay. *E. N. Fedorchuk, V. N. Kulitskii, and É. I. Lychkovskii.* **1978, No. 4, 1142 [272].**

Stepping System of Scanning on the Basis of a Programmed Reversible Counter F5007. *G. V. Zhivukin.* **1979, No. 1, 145 [137].**

Clock Unit Based on Ferroelectric Device. *A. A. Grekov, N. A. Korchagina, and E. D. Rogach.* **1979, No. 4, 1167 [262].**

Simple Exposure Timer Based on an Élektronika B3-18A Computer. *L. Ya. Ginesskii, S. A. Shein, and A. S. Karasik.* **1981, No. 3, 800 [219].**

Program-Controlled Synchronization Device for a Complex Physics Experiment. *E. M. Gleibman, I. A. Golutvin, and V. V. Tarasov.* **1982, No. 1, 83 [79].**

Program Device for Controlling a Multichannel Switch. *Yu. M. Bonkarev.* **1982, No. 2, 344 [62].**

A Timeswitch Based on an Élektronika B3-21 Programmable Microcalculator. *A. N. Dorofeev.* **1982, No. 4, 866 [80].**

Programmable Rotator. *I. D. Voronov, V. M. Zaikin, E. I. Kozedub, and V. V. Pashkov.* **1985, No. 1, 254 [227].**

Timer for Experiment Automation Using Elektronika D3-28 Microcomputer. *A. B. Maksimovich, S. D. Khomuk, N. A. Obolentsev, and V. A. Skarzhepa.* **1986, No. 1, 77 [72].**

Digital Scale Marker. *V. V. Evseev and Ya. G. Ponomarev.* **1986, No. 1, 88 [83].**

Automatic Cyclic Switching Unit. *G. D. Akhmetbekov, G. A. Babchenko, and P. E. Ramazanov.* **1986, No. 2, 509 [225].**

Programmable Timer. *A. S. Azarov, V. F. Borzhkovskii, and V. F. Ivanov.* **1986, No. 4, 961 [186].**

Five-Channel Time Switch. *Z. R. Zakar'yaev.* **1986, No. 5, 1219 [210].**

Programmable Multichannel Controller. *A. S. Koleznev.* **1988, No. 5, 1321 [191].**

5. RADIO-ELECTRONIC APPARATUS FOR NUCLEAR RESEARCH

Automatic Pulse-Train Counter and Recorder. *S. G. Kornilova, N. S. Zaretskii, and V. I. Gubanov.* **1977, No. 5, 1319 [80].**

Pulse Shapers for Multichannel Electronic Equipment. *S. G. Basiladze and V. K. Yudin.* **1977, No. 5, 1359 [113].**

Electronic Apparatus for the Expanded Diagnostic System of the Beam of the Liquid Hydrogen Chamber "Lyudmila". *S. G. Basiladze, N. F. Bulanov, Ngugen Viet Zung, and V. K. Yudin.* **1978, No. 5, 1252 [90].**

Program Blocks of the SUMMA System of Unified Multichannel Analysis Modules. *V. G. Rybakov.* **1978, No. 5, 1257 [94].**

Preliminary Apparatus Analysis of Random Processes. *A. V. Blokhin.* **1978, No. 5, 1259 [95].**

Digital Device for Eliminating False Signal Transitions through Zero. *A. S. Glinchenko and M. K. Chmykh.* **1979, No. 2, 410 [112].**

Prospects for Unification of Analog–Digital Converters of Hodoscopic Registration Systems. *S. G. Basiladze and L. Lokhonyai.* **1979, No. 6, 1555 [72].**

Multichannel Nanosecond-Range Logic Circuits. *S. G. Basiladze and Nguen Tkhi Sha.* **1980, No. 2, 430 [129].**

Units for Measuring the Lifetime of Positrons and Positronium in Condensed Media. *V. N. Belyaev, V. Yu. Kovalen', V. I. Razov, E. V. Sobolev, and Yu. V. Shtotskin.* **1980, No. 6, 1362 [44].**

System for Actuating and Synchronizing a Streamer Chamber Setup. *Yu. M. Arkatov, P. I. Vatset, V. I. Voloshchuk, V. A. Zolenko, and I. M. Prokhorets.* **1981, No. 2, 384 [91].**

Multichannel System for Measuring the Asymmetry in Reactions with Polarized Particles. *Yu. P. Antuf'ev, A. S. Deineko, and V. D. Sarana.* **1981, No. 4, 925 [96].**

Apparatus for Measuring the Lifetime of Positrons in Metals. *V. D. Zabolotnyi, Yu. P. Antuf'ev, A. I. Popov, V. M. Mishchenko, N. A. Shlyakhov, and V. E. Storizhko.* **1981, No. 4, 928 [99].**

Encoder for the "Disk" Neutron Diffractometer. *A. E. Golovin and A. B. Tyugin.* **1981, No. 6, 1397 [62].**

Controllable Scanner for an Automatic Nuclear Photoemulsion Analyzer. *V. A. Grashilin and Yu. Ya. Karlyshev.* **1982, No. 4, 874 [87].**

Units and Devices Enhancing the Reliability and Simplifying the Operation of Apparatus for Studying Double β-Decay. *Yu. G. Zdesenko, V. N. Kuts, I. A. Mytsyk, and A. S. Nikolaiko.* **1982, No. 5, 1124 [77].**

Rare-Event Recorder Interface. *V. N. Kuts.* **1983, No. 5, 1109 [100].**

Analog Video Signal Processor for an Automatic Nuclear Photoemulsion Scanning System. *Yu. Ya. Karlyshev.* **1983, No. 6, 1322 [67].**

Automatic System for Holding Pinch in Equilibrium Position in Tokamak. *I. M. Averin-Lavrov, E. I. Gusevskaya, and S. M. Naftulin.* **1985, No. 4, 818 [79].**

Selection System for Particles with Lifetimes of 1-0.1 psec. *S. G. Bobkov, V. A. Kantserov, and A. S. Pershin.* **1986, No. 1, 60 [59].**

Amplitude-Frequency Converter of Signals from Radioisotope Instruments. *V. P. Demchenkov and I. N. Korobkov.* **1988, No. 3, 615 [86].**

Protection of Equipment from Electromagnetic Noise of 9-TW Pulsed Thermonuclear Facility. *V. I. Zaitsev, R. I. Kopyrina, A. P. Kostromin, and G. M. Oleinik.* **1990, No. 4, 880 [150].**

5.1. Circuits for accelerators

Automatic Control System for the MEP-2 Modulator of the "Crion" Ion Source. *V. G. Dudnikov.* **1978, No. 3, 706 [145].**

Simple Circuit for a Meter of the Integral Radiation Dose of an Accelerator. *V. A. Zapevalov and P. I. Reingardt-Nikulin.* **1979, No. 6, 1537 [55].**

Analog System for Orientation of Single-Crystal Target in Electron Accelerator. *B. R. Meshcherov and V. I. Tumanov.* **1987, No. 3, 555 [56].**

Time Referencing to Particle Bunches in Cyclotron Beam. *A. V. Kuznichenko and V. N. Lebedev.* **1987, No. 5, 1049 [35].**

Fast Pulsed System for Charging the Shaping Lines of an Accelerator. *V. V. Vasil'ev, E. I. Lukonin, and E. G. Furman.* **1987, No. 6, 1363 [81].**

Microprocessor Subsystem for Control of Arc Source of Multiply Charged Ions of U-400 Cyclotron. *A. A. Kas'yanov, V. B. Kutner, V. M. Rybin, V. G. Subbotin, A. M. Sukhov, Yu. P. Tret'yakov, and B. V. Fefilov.* **1988, No. 4, 889 [58].**

Intermediate Storage Device of "Start" Accelerator. *N. I. Gaponenko, Yu. V. Tkach, I. A. Stepanenko, A. S. Kozachek, A. D. Komarov, and N. P. Gadetskii.* **1988, No. 4, 939 [100].**

Circuit for Sampling of Pulse Signals from Sensors of a Linear Electron Accelerator. *A. S. Azarov, V. F. Borzhkovskii, Yu. V. Kostenets, L. A. Makhnenko, V. V. Postol, V. S. Solov'ev, and N. G. Stervoedov.* **1989, No. 3, 527 [33].**

Automatic Control System for High-Voltage Accelerator. *A. N. Bryukhanov, P. Yu. Komissarov, V. V. Lapin, S. T. Latushkin, D. E. Fomenko, and L. I. Yudin.* **1991, No. 5, 1052 [69].**

5.2. Circuits for photomultipliers, particle detectors, chambers

Information Readout Circuit for Magnetostriction Spark Cameras. *S. G. Basiladze, Z. Guzik, and A. N. Parfenov.* **1977, No. 4, 1044 [112].**

Calculation of Missed Counts and Registration Efficiency of Electronic Systems for Drift Chambers. *S. G. Basiladze and V. Tlachala.* **1977, No. 4, 1047 [114].**

Block for Parallel Coding of Information from Multiwire Proportional Chambers. *N. M. Nikityuk, R. S. Radzhabov, and M. D. Shafranov.* **1978, No. 4, 938 [95].**

Large Hybrid Integrated Circuit "Dual Registration Channel for Proportional Counters". *Yu. A. Afanas'ev, S. G. Basiladze, M. V. Gusak, S. M. Korenchenko, and M. I. Markus.* **1978, No. 5, 1278 [112].**

Electronic Device for Registering Signals from Proportional Chambers Based on the Specialized K405KhP1 Integrated Circuit. *S. G. Basiladze and V. K. Yudin.* **1979, No. 4, 985 [100].**

Encoder for Proportional Chambers. *R. S. Radzhabov.* **1979, No. 6, 1547 [64].**

Circuit for Information Readout from Drift Chambers. *V. V. Karpukhin.* **1980, No. 2, 384 [88].**

Equipment for Controlling a Four-Telescope Semiconductor Spectrometer. *L. V. Krasnov and I. G. Yatsyshin.* **1980, No. 4, 888 [78].**

A Discharge-Quenching Circuit for Counters. *A. S. Karasik.* **1982, No. 1, 102 [96].**

32-Channel Electronic Module for Wire Chambers. *M. V. Bartikyan, S. S. Mirzoyan, E. M. Matevosyan, K. Sh. Oganyan, and K. K. Shikhlyarov.* **1982, No. 3, 590 [75].**

Controller for Reading and Encoding Data from Proportional Coordinate Detectors. *T. V. Bespalova, I. A. Golutvin, and D. A. Smolin.* **1983, No. 2, 297 [53].**

Automated System of Recording Rare Pulses of a Proportional Counter. *I. R. Barsbanov, V. N. Gavrin, and Yu. I. Zakharov.* **1983, No. 3, 554 [56].**

Auxiliary Controllers for Data Acquisition from Scintillation Detectors. *D. A. Leonenko, V. G. Rybakov, and V. A. Sen'ko.* **1983, No. 5, 1104 [95].**

Unit for Detecting Gamma and X-Rays Using Mercury Diiodide Operating at Room Temperature. *K. G. Bulatetskii, V. M. Zaletin, and V. I. Fomin.* **1984, No. 3, 613 [90].**

Test System for Checking Electronic Instrumentation of Multichannel Drift Chambers. *V. V. Karpukhin.* **1984, No. 4, 871 [80].**

Electronic System for Recording Widely Spaced Pulses from a Proportional Counter with Pulse-Shape Analysis. *I. R. Barabanov, V. N. Cavrin, Yu. I. Zakharov, and A. A. Tikhonov.* **1984, No. 5, 1142 [89].**

Apparatus for Recording Signals from Neutrino-Calorimeter Drift Chambers. *Yu. B. Bushnin, A. N. Isaev, A. K. Koloplyannikov, N. K. Marchikhia, and V. A. Sen'ko.* **1984, No. 6, 1385 [80].**

Data Register and Processor for Multiwire Chambers. *V. V. Karpukhin.* **1985, No. 1, 73 [73].**

Electronic Circuit of Peak Detector Based on Drift Chambers. *S. G. Bobkov, V. A. Kantserov, V. V. Sosnovtsev, and V. K. Chernyatin.* **1985, No. 4, 822 [82].**

Discharge Quencher for Geiger Counters. *R. K. Mushev.* **1985, No. 5, 1054 [61].**

Microprocessor Current Monitor and Voltage Controller for Wire Gas Detectors. *V. V. Zil'berg, P. A. Kulinich, and R. Toledo.* **1986, No. 3, 611 [95].**

Acquisition and Processing of Proportional Chamber Data. *Yu. A. Kozhevnikov.* **1986, No. 6, 1325 [81].**

Stabilization of Photomultiplier Gain of Liquid Scintillation Counter. *I. D. Alkhazov, V. D. Dmitriev, A. V. Kuznetsov, L. Z. Malkin, B. F. Petrov, A. K. Sheremet'ev, and V. I. Shpakov.* **1987, No. 5, 1108 [86].**

Development of FASTBUS-Compatible Modules for Recording of Analog Data from Multichannel Coordinate Detectors. *M. Weiss, V. S. Korolev, A. N. Parfenov, A. V. Pilyar, and E. Hmelewski.* **1988, No. 6, 1461 [82].**

Connection of Several Semiconductor Detectors to One Coaxial Cable. *V. M. Gorbachev, V. V. Gorbunov, V. N. Korolev, and L. V. Serdyukov.* **1990, No. 1, 186 [177].**

Data-Acquisition Channel for Ionization Chambers. *G. L. Bashindzhagyan, A. G. Voronin, V. S. Eganov, E. N. Kuznetsov, and A. A. Savin.* **1991, No. 2, 336 [99].**

Data-Acquisition Device for Multielectrode Emission and Ionization Chambers Used to Determine Profile of Phasotron Particle Beam. *V. A. Antyukhov, N. I. Zhuravlev, A. V. Zernov, V. G. Zinov, and M. Mlynarchik.* **1991, No. 4, 811 [69].**

5.3. Spectrometer channels

Analog Processor. *O. I. Andronov and V. G. Brovchenko.* **1977, No. 3, 787 [157].**

Automation of Parameter Measurement and Monitoring for Amplification–Conversion Tract of a Spectrometer Based on Semiconductor Mosaics. *I. N. Sinogeev, M. N. Andronenko, and E. M. Orishchin.* **1977, No. 4, 966 [41].**

System for Stabilization of Spectrometric Channel with Automatic Reference Peak Search. *B. N. Veits, Yu. V. Klyuchinskii, and R. A. Lein'.* **1978, No. 1, 63 [63].**

Scale Stabilizer Based on ^{40}K Photopeak for Scintillation Detector. *A. K. Sheremet'ev.* **1978, No. 1, 65 [65].**

Detection Unit with Correlation Charge-Sensitive Preamplifier. *V. N. Pod'yachev.* **1980, No. 4, 944 [131].**

Calibration of the Spectrometer Channels of Multidetector Systems. *L. V. Krasnov and I. G. Yatsyshin.* **1980, No. 5, 1106 [49].**

Analog Processing Unit for Spectrometric Data from Semiconductor Detectors. *O. V. Ignat'ev, A. I. Kosse, and N. F. Shkola.* **1980, No. 6, 1386 [68].**

Stabilizer of the Regime of Amplitude Selection of Pulses in a Positron Lifetime Spectrometer. *N. P. Valuev and A. N. Zhikharev.* **1982, No. 3, 593 [77].**

Fast Response of Spectrometric Channels. *A. M. Kalashnikov and A. K. Sheremet'ev.* **1983, No. 3, 528 [35].**

Spectrometric Measurement and Signal Processing Module of Semiconductor Detectors. *I. B. Mazurov and Yu. G. Sibiryak.* **1983, No. 4, 848 [98].**

A Band-Amplifier Pulse Shaper for Nuclear Radiation Spectrometry. *I. A. Vasil'ev, Yu. L. Parfenov, and P. I. Chalov.* **1983, No. 5, 1132 [121].**

Shortening of Particle-Detector Pulses by Zero Pole Compensation. *R. N. Krasnokutskii, Yu. M. Pishchal'nikov, and R. S. Shuvalov.* **1984, No. 5, 1146 [94].**

Stabilization of Scintillation Detector by Reference Signal from Radioactive Source. *O. I. Nedavnii.* **1984, No. 6, 1363 [58].**

Clamping Circuit. *P. V. Denisyuk, V. V. Eliseeva, G. V. Il'inskii, and O. L. Kuznetsov.* **1984, No. 6, 1404 [98].**

Precision Storage Device for Regulation Circuits of Scintillation Detectors. *N. I. Bashkirov.* **1986, No. 5, 1071 [81].**

Highly Stable Pulse Stretchers. *V. A. Svintenok and E. A. Nikiforov.* **1987, No. 4, 883 [117].**

AP-002M Analog Processor for Spectrometers of Ionizing Radiation with Semiconductor Detectors. *O. V. Ignat'ev, N. F. Shkola, and Yu. A. Shevchenko.* **1987, No. 5, 1095 [74].**

Spectrometric Channel of Alpha Ionization Spectrometer. *Yu. L. Parfenov.* **1988, No. 5, 1129 [39].**

Strobed Integrator. *R. N. Krasnokutskii, L. L. Kurchaninov, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1989, No. 1, 157 [140].**

Amplifier-Discriminator and Charge Converter for Processing of Photomultiplier Signals. *G. K. Garipov, A. A. Silaev, and R. I. Chernykh.* **1989, No. 3, 629 [124].**

Automated Neutron-Registration Channel for Research Reactors. *P. F. Cherednik, S. V. Mukhachev, A. F. Kushnarev, and V. M. Chizhkin.* **1990, No. 5, 1020 [50].**

5.3.1. Spectrometer amplifiers and shapers

Shaper Amplifier for Proportional Chambers. *A. V. Vishnevskii, A. V. Zarubin, and E. A. Silaev.* **1977, No. 1, 154 [138].**

Fast Amplifier with High Load Capacity. *E. A. Meleshko and A. G. Morozov.* **1977, No. 1, 157 [141].**

Linear Spectrometer Amplifier. *O. V. Ignat'ev and N. F. Shkola.* **1977, No. 4, 1068 [133].**

Pulse Shaper for Scintillation and Cerenkov Counters. *I. V. Glavanakov, V. N. Stibunov, and N. P. Fedorov.* **1977, No. 4, 1111 [172].**

Amplifier–Shaper for Drift Chambers. *S. G. Basiladze and L. Lokhonyai.* **1979, No. 3, 746 [122].**

Amplifier for Electron Multiplier Signals. *N. V. Nikonenkov.* **1980, No. 2, 426 [125].**

Highly Sensitive Shapers of Photomultiplier Signals. *B. Yu. Baldin.* **1980, No. 5, 1202 [137].**

A Multiple-Input Circuit for Shaping Pulses from Nuclear Radiation Detectors. *B. E. Leshchenko and T. Starichkai.* **1981, No. 5, 1205 [102].**

Unit for Linear Amplification, Gating, and Adding of Pulses for Multidetector Spectrometers. *E. A. Meleshko, S. V. Oleinik, and Yu. Yu. Palkin.* **1983, No. 6, 1366 [104].**

Spectrometer Amplifier. *Yu. K. Akimov, Din Shi Huen, and A. I. Kalinin.* **1985, No. 3, 645 [131].**

Shaper Amplifier with Symmetric Feedback for Drift Chambers. *A. A. Omel'yanenko, M. N. Omel'yanenko, and L. S. Barabash.* **1985, No. 4, 857 [114].**

Amplifier for Measuring Profile of Slowly Extracted Proton Beam. *A. S. Dyshkant, V. A. Krendelev, and V. Ya. Uglekov.* **1985, No. 5, 1115 [115].**

Operational Amplifiers for Spectrometric Apparatus. *V. I. Andreevskaya and A. K. Sheremet'ev.* **1988, No. 5, 1224 [117].**

5.3.2. Input stages

Charge-Sensitive Amplifier with Source-Follower Input. *V. S. Gorev, M. D. Firsov, V. V. Kandybin, and N. I. Shatilo.* **1977, No. 3, 757 [132].**

Universal Charge-Sensitive Preamplifier. *V. I. Dukhanov, I. B. Mazurov, A. A. Mitin, and A. A. Chesalov.* **1977, No. 4, 1065 [131].**

Low-Noise Preamplifier with Pulsed Drain Negative Feedback. *V. A. Tret'yakov and S. V. Bakhlanov.* **1978, No. 1, 94 [93].**

Low-Noise Preamplifier with Continuous Drain Negative Feedback. *V. A. Tret'yakov and S. V. Bakhlanov.* **1978, No. 1, 98 [97].**

Modernization of Preamplifier of the SÉS2-03 Spectrometric Installation. *V. S. Al'nikov and B. V. Nesterov.* **1978, No. 6, 1636 [161].**

Charge-Sensitive Preamplifier with Drain Feedback for X-Ray Spectrometer. *V. N. Sinitsyn and Yu. N. Ginzburg.* **1986, No. 5, 1120 [125].**

Equivalent Noise Charge of KP903 Transistors. *A. V. Korytov, R. N. Krasnokutskii, and R. S. Shuvalov.* **1986, No. 5, 1123 [127].**

Analysis of Preamplifier Noise Sources with Sink Feedback for X-Ray Spectrometers. *V. N. Sinitsyn and Yu. N. Ginzburg.* **1986, No. 6, 1352 [105].**

Noise Characteristics of Silicon Thin-Film Resistors. *S. V. Belogurov, V. V. Gostilo, and A. S. Yurov.* **1986, No. 6, 1357 [108].**

Determination of Distributed Base Impedance of Bipolar Transistors from Measured Spectral Noise Density. *R. N. Krasnokutskii, L. L. Kurchaninov, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1986, No. 6, 1360 [111].**

Frequency Dependence of Resistive Component of Impedance of Silicon Thin-Film Resistors. *S. V. Belogurov, V. V. Gostilo, and A. S. Yurov.* **1987, No. 4, 978 [199].**

Measurement of Distributed Base Resistance of Uncased Bipolar Transistors. *L. L. Kurchaninov, V. V. Tikhonov, and R. S. Shuvalov.* **1988, No. 1, 164 [142].**

Selection of Front-End Element for Low-Noise Bipolar-Transistor Amplifier. *R. N. Krasnokutskii, L. L. Kurchaninov, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1988, No. 3, 671 [129].**

Low-Noise Transistors for Use in Nuclear Electronics. *R. N. Krasnokutskii, L. L. Kurchaninov, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1988, No. 5, 1227 [118].**

Equivalent Noise Charge of KT640, KT391, KT399, and KT3124 Transistors. *R. N. Krasnokutskii, L. L. Kurchaninov, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1989, No. 5, 1051 [73].**

Noise Characteristics of KP341 Field-Effect Transistor at T = 77 and 300 K. *R. N. Krasnokutskii, L. L. Kurchaninov, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1989, No. 5, 1055 [76].**

Field-Effect Transistors for Front-End Stages of Ionizing-Radiation Detection Units. *V. V. Gostilo and A. A. Popov.* **1989, No. 5, 1166 [173].**

Noise Characteristics of Unpackaged Bipolar Transistors. *R. N. Krasnokutskii, L. L. Kurchaninov, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1990, No. 3, 633 [140].**

Determination of Distributed Base Resistance of Bipolar Transistors by Noise Measurements. *A. V. Korytov.* **1990, No. 4, 871 [143].**

Low-Noise Amplifier for Microstrip Detectors and Proportional Chambers. *R. N. Krasnokutskii, L. L. Kurchaninov, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1990, No. 6, 1339 [106].**

Hybrid Low-Noise Amplifier with Bipolar Transistors. *V. M. Golovin, R. N. Krasnokutskii, L. L. Kurchaninov, V. E. Postoev, R. S. Shuvalov, and V. V. Shchepillo.* **1991, No. 1, 130 [132].**

Study of Spectral Density of Series Noise of Field-Effect Transistors. *I. N. Gavrilova and V. V. Gostilo.* **1991, No. 2, 344 [106].**

5.3.3. Charge converters

Low-Noise Integrating Converter of Current Pulses into Voltage Pulses. *S. P. Golenetskii, V. A. Kireev, V. E. Kostousov, and A. I. Yanter.* **1978, No. 4, 963 [114].**

Charge–Digital Nanosecond Pulse Transducer. *Yu. B. Bushnin, A. A. Denisenko, A. F. Dunaitsev, M. M. Soldatov, A. N. Sytin, and V. I. Yakimchuk.* **1980, No. 3, 625 [80].**

A Multichannel Charge Digitizer for Hodoscopic Recording Systems. *S. G. Basiladze and L. Lokhonyai.* **1982, No. 1, 98 [92].**

Hybrid Integrated Circuit for Charge-to-Time Interval Conversion. *S. G. Basiladze, Yu. Yu. Dotsenko, P. K. Man'yakov, and S. N. Fedorchenko.* **1982, No. 1, 109 [102].**

Charge and Amplitude Digitizers for Multichannel Spectrometer Systems. *S. G. Basiladze, V. A. Budilov, and P. K. Man'yakov.* **1982, No. 2, 339 [57].**

Logarithmic Charge-Digital Converters for Operation with Proportional Chambers. *G. L. Bashindzhagyan and N. B. Sinev.* **1983, No. 4, 855 [105].**

Wide-Range Charge-to-Code Converter for a Large-Volume Cerenkov Detector. *G. A. Potapov and I. V. Penin.* **1986, No. 6, 1332 [88].**

Wideband Charge-to-Number Converter. *V. A. Kantserov and V. B. Strigin.* **1987, No. 3, 583 [80].**

5.4. Time-marker circuits

Universal Discriminator with Exact Time Clamping. *B. Yu. Baldin, Z. V. Krumshtein, and A. I. Ronzhin.* **1977, No. 5, 1331 [91].**

Shaper for Time Tie-In. *Yu. V. Sten'kin and V. I. Stepanov.* **1978, No. 5, 1304 [135].**

Device for Timing the Middle of a Varying Time Interval. *A. I. Klimov, E. A. Meleshko, and V. I. Selivanov.* **1980, No. 2, 437 [135].**

Pulse Shaper for Time Clampiny to the Rising Edge of Pulses in Semiconductor Detectors. *A. A. Aleksandrov, V. A. Mokrousov, and Yu. V. Pyatkov.* **1982, No. 4, 915 [122].**

Dual Differential Discriminator with Accurate Time Linkage to a Time-to-Height Converter. *S. G. Basiladze and Nguen Tkhi Sha.* **1983, No. 6, 1333 [76].**

Pulse Shaper with Amplitude-Compensated Time Locking Onto Mathematical Center of Gravity. *V. G. Vasil'chenko, V. V. Dronov, V. G. Lapshin, and V. I. Rykalin.* **1987, No. 2, 357 [105].**

Shaper with Precision Time Locking. *N. P. Valuev and A. N. Zhikharev.* **1987, No. 2, 365 [111].**

Time-Referencing Device for Large Scintillation Counters. *V. F. Boreiko, V. M. Grebenyuk, V. G. Zinov, V. V. Ivanov, Yu. A. Kozhevnikov, and G. D. Stoletov.* **1987, No. 5, 1109 [87].**

Charged-Particle Detector with Time Marker. *S. S. Verbitskii, I. S. Grabovskii, V. E. Zhuravlev, A. K. Kulebyakin, and A. A. Malyutin.* **1989, No. 4, 982 [221].**

Differential Discriminator with Time-Reference Channel. *V. N. Urin and A. G. Isaev.* **1990, No. 5, 1086 [107].**

5.5. Discriminators and selectors

5.5.1. Amplitude discriminators

Shaper-Discriminator for Low-Noise Spectrometers. *Yu. N. Markov.* **1977, No. 2, 440 [103].**

Ten-Channel Differential Discriminator. *V. S. Mironchik, Yu. A. Panov, and E. Ya. Éns.* **1977, No. 3, 704 [86].**

Low-Hysteresis Discriminator. *E. V. Korol'ko and V. V. Suvorov.* **1977, No. 3, 706 [87].**

Stabilized Differential Discriminator with Automatic Threshold Control. *G. Yu. Besednov and A. G. Leshchinskii.* **1978, No. 1, 59 [59].**

High-Speed Broadband Amplitude Discriminator that Does Not Change Pulse Duration. *V. O. Orlovskii, L. L. Kir'yakov, V. I. Kravtsov, and E. A. Chemes.* **1978, No. 1, 62 [61].**

Integrated Code Discriminator. *V. V. Koshtoev and E. Ya. Lerman.* **1978, No. 3, 701 [140].**

Adjustable Amplitude Selector. *B. M. Savichev, G. A. Aver'yanov, Yu. V. Pleshanov, and V. S. Proshina.* **1979, No. 2, 463 [160].**

Microcircuit-Based Integrodifferential Discriminator. *V. V. Butskii and S. S. Vetokhin.* **1979, No. 5, 1324 [128].**

Strobed Integral Pulse Discriminator. *N. N. Balamatov and Yu. V. Nil'sen.* **1979, No. 5, 1326 [130].**

Nanosecond Pulse-Amplitude Discriminators Based on Avalanche and Power MDS Transistors. *V. P. D'yakonov.* **1981, No. 2, 397 [103].**

A Highly Sensitive Differential Pulse Discriminator. *V. I. Karas'.* **1981, No. 2, 399 [105].**

Differential Discriminator. *V. I. Dukhanov and I. B. Mazurov.* **1981, No. 6, 1454 [114].**

A Differential Amplitude Discriminator. *V. I. Antonov and S. V. Kholondyrev.* **1982, No. 1, 160 [141].**

A Fast One-Electron Pulse Discriminator. *K. D. Shelevoi, V. V. Burkov, and A. A. Venikov.* **1982, No. 5, 1150 [99].**

Synchronization Method in Amplitude Differential Discriminators. *I. Yu. Khromov and V. I. Sinyavskii.* **1983, No. 4, 905 [149].**

Differential Pulse Discriminator-Counter. *K. D. Shelevoi and A. A. Venikov.* **1984, No. 5, 1139 [87].**

Eight-Channel Integral Discriminator for Recording Proportional-Counter Signals. *V. G. Brovchenko, A. M. Kirichenko, and M. M. Tsygankov.* **1985, No. 3, 611 [102].**

High-Speed Differential Pulse Discriminator-Counter. *K. D. Shelevoi.* **1985, No. 3, 614 [105].**

Discriminator Based on Voltage Comparator for Nuclear Physics Research. *V. A. Vorob'ev, A. A. Kiselev, and R. N. Kuz'min.* **1985, No. 3, 648 [134].**

Pulse Amplitude and Duration Selector. *S. V. Smirnov and E. A. Kolombet.* **1985, No. 4, 826 [86].**

Threshold Signal Shaper for Detector Operating Under Increased Loads. *A. I. Zhernov, N. S. Pronkin, and V. Y. Khakhalin.* **1986, No. 1, 18 [23].**

Preamplifier-Discriminator for Photomultipliers. *V. Ya. Groshev and V. A. Zabrodskii.* **1986, No. 2, 394 [118].**

Discriminator for Proportional Drift Detector. *E. V. Brakhman.* **1986, No. 3, 660 [140].**

Selection of Desired-Signal Pulses according to Delay of Their Amplitude Variation. *V. Yu. Solonin.* **1986, No. 4, 866 [105].**

Adaptive Pulse-Amplitude Selector. *L. M. Bud'ko.* **1986, No. 5, 1080 [90].**

CAMAC-Compatible Differential Pulse Discriminator-Counter. *I. V. Tselikov.* **1987, No. 4, 841 [80].**

Simple Differential Amplitude Discriminator. *N. I. Bashkirov.* **1987, No. 4, 878 [112].**

Amplitude Discriminator. *N. E. Overko and I. A. Chichibaba.* **1989, No. 3, 722 [202].**

Differential Pulse Discriminator. *K. D. Shelevoi.* **1990, No. 2, 347 [105].**

General-Purpose Multichannel Discriminator. *V. G. Brovchenko, A. M. Kirichenko, and M. M. Tsygankov.* **1990, No. 4, 825 [104].**

Pulse-Amplitude Discriminator. *J. Baczynski.* **1991, No. 5, 1089 [101].**

5.5.2. Time discriminators

High-Precision Time Discriminator. *A. D. Bordus.* **1977, No. 1, 105 [96].**

Time Discriminator. *B. P. Sabanin.* **1977, No. 1, 108 [98].**

Use of Leading-Edge Discriminators to Reduce Background of Commercial Proportional X-Ray Counters. *D. A. Goganov, A. G. Guslina, V. F. Korolev, B. S. Lozinskii, and V. A. Sklyankin.* **1977, No. 3, 708 [89].**

Digital Separator of Pile-Ups of Time Intervals. *S. G. Basiladze and Nguen Kuang Min'.* **1978, No. 6, 1518 [59].**

Pulse-Width Discriminator. *Yu. G. Budyashov, V. M. Grebenyuk, and V. G. Zinov.* **1978, No. 6, 1547 [85].**

Simple Pulse Duration Discriminator. *M. N. Aliev and Sh. A. Kiyasbeili.* **1979, No. 1, 113 [109].**

Time-Interval Identifier. *V. D. Pysin, V. V. Kitaev, V. I. Afanas'ev, and V. A. Serikov.* **1980, No. 1, 175 [171].**

Pulse Duration Selector. *V. V. Blatov, A. A. Chudov, and G. V. Gromova.* **1980, No. 3, 650 [103].**

Pulse Duration Discriminator. *L. F. Kosakovskii.* **1980, No. 6, 1423 [102].**

Linear-Gate Device. *I. B. Mazurov and Yu. G. Sibiryak.* **1981, No. 4, 952 [122].**

Duration Pulse Selector for Digital Systems. *B. I. Makhnyuk, S. A. Makhota, and A. A. Rozov.* **1983, No. 3, 607 [107].**

Random-Pulse Duration Discriminator. *O. K. Kutsenko and V. A. Pogribnoi.* **1985, No. 6, 1339 [96].**

Pulse Rise-Time Discriminator. *E. A. Meleshko and S. V. Oleinik.* **1986, No. 2, 396 [119].**

Pulse Duration Selector. *V. N. Kozhukhovskii and A. B. Ordynskii.* **1988, No. 2, 348 [79].**

5.6. Analyzers and spectrometers

Two-Dimensional Buffer Store Based on a Multichannel Amplitude Analyzer. *V. L. Dadykin and A. L. Tsyabuk.* **1978, No. 1, 53 [53].**

Use of Multichannel Analyzers for Simultaneous Measurement of Two Synchronously Occurring Time Processes. *Yu. V. Baldokhin, G. V. Popov, and V. A. Bokov.* **1978, No. 1, 55 [55].**

Automatic Channel-Width Switching in NTA-512B Analyzer in Multichannel Counting Mode. *I. I. Gainish and A. A. Teke.* **1978, No. 1, 57 [57].**

Operational Organization of Storage of AI-128-2 Pulse-Height Analyzer in Multichannel Counting Mode. *V. V. Bagaev, I. F. Kalinkevich, Yu. V. Maidl', and I. E. Tomashevskii.* **1978, No. 2, 382 [108].**

Effective Method of Experimental-Data Reduction Using the Technique of Multichannel Pulse-Height Analysis. *O. A. Anisimov, A. B. Doktorov, and V. D. Zhidkov.* **1978, No. 3, 602 [49].**

Semiconductor X-Ray Spectrometer with Optical Feedback. *A. M. Zubareva, S. Iliev, V. F. Kushniruk, A. V. Rykhlyuk, V. G. Subbotin, and Yu. P. Kharitonov.* **1978, No. 3, 604 [50].**

Use of AI-4096 Analyzer and TsAP-723/1 Digital–Analog Converter in a Photoelectronic Spectrometer and in a Coincidence Instrument. *Yu. L. Sergeev, A. V. Golovin, and S. I. Lozovoi.* **1978, No. 5, 1267 [102].**

Transfer of Information from AI-1024 Storage to PL-80 Perforator. *N. P. Barabanov and B. P. Sabanin.* **1978, No. 6, 1510 [51].**

Transfer of Information from an AI-4096 Analyzer to Digital Indicators and Curve Plotter. *Yu. G. Zdesenko, A. K. Cheburkin, and V. N. Kuts.* **1978, No. 6, 1513 [53].**

Analysis of Operating Quality of a Stabilized Spectrometer for Scattered Gamma Radiation. *O. M. Anshakov and V. A. Chudakov.* **1979, No. 2, 339 [48].**

Device for Digital Selection and Compression of Data from Semiconductor Spectrometers. *M. I. Skopyuk and V. A. Shevchenko.* **1979, No. 5, 1307 [112].**

Highly Accurate Spectrometer for Muon Experiments. *A. I. Klimov, A. E. Meleshko, B. A. Nikol'skii, and V. I. Selivanov.* **1980, No. 1, 51 [56].**

Commutator with Buffer Storage Device for Use with AI-4096 Analyzer. *V. N. Belogurov, V. A. Bylinkin, V. F. Vasil'ev, and P. E. Sen'kov.* **1980, No. 1, 105 [108].**

Memory Sector Selection Unit for AI-4096-3M Analyzer. *I. I. Gainish and A. A. Teke.* **1980, No. 3, 639 [92].**

Pulse Sign Correlator in Nanosecond Range. *Yu. P. Egorov, A. S. Petrov, B. L. Pivovarov, and V. A. Trofimov.* **1980, No. 3, 654 [107].**

Preliminary Processing of Experimental Data in AI-4096 Multichannel Analyzer. *R. B. Begzhanov and D. A. Gladyshev.* **1980, No. 5, 1130 [71].**

Circuits for Generating and Displaying Tags in AI-4096 Analyzers. *A. D. Rabinovich, P. N. Glukhov, and V. A. Khudyakov.* **1980, No. 5, 1131 [72].**

Selective Analysis of Signals with Recording of Spectra Distributed over the Memory of a Multichannel Analyzer. *M. V. Sazhin and V. P. Dombrovskii.* **1982, No. 1, 74 [71].**

Multichannel Analyzer as a Memory Block. *O. G. Ryazhskaya and V. G. Ryasnyi.* **1982, No. 3, 588 [73].**

System for Recording Electron–Atom Collision Cross Sections Using an AI-256-6 Pulse Analyzer. *Yu. I. Malakhov and M. B. Shapochkin.* **1982, No. 4, 962 [164].**

Digital Stabilization of Multichannel Gamma Spectrometer. *V. V. Remeikis.* **1984, No. 6, 1382 [77].**

Modernized Plotter Interface for AI-4096 Analyzer. *V. N. Sinitsyn, Yu. N. Ginzburg, and P. L. Lysenko.* **1984, No. 6, 1393 [87].**

Multichannel Counter Based on Pulse Analyzer. *Yu. A Babenko, I. N. Kozlov, O. P. Nikotin, and A. A. Sluchaev.* **1984, No. 6, 1394 [88].**

Numeric-Printer Interface for AI-4096 Analyzer. *F. A. Dederer and V. G. Mironchik.* **1984, No. 6, 1503 [183].**

Discrete-Scanning Data Acquisition System Based on Multichannel Pulse Analyzer. *A. A. Krokhotkin, V. A. Slemzin, and A. I. Shurygin.* **1985, No. 2, 374 [104].**

Data Acquisition System for Scanning Auger Attachment to Electron Spectrometer. *N. V. Egorov, A. G. Karpov, and V. V. Yanovskii.* **1985, No. 2, 376 [106].**

Neutron Spectrometer with Pulse-Shape Gamma-Quantum Discrimination. *S. N. Belyaev, A. B. Kozin, T. N. Mamedov, V. S. Roganov, and A. A. Solnyshkin.* **1985, No. 6, 1278 [41].**

Automated Scintillation Spectrometer. *O. I. Andronov, V. G. Brovchenko, S. T. Evdokimov, A. V. Parshin, A. A. Petrov, and M. M. Tsygankov.* **1986, No. 5, 1026 [40].**

Portable Spectrometer for Correlation Experiments. *V. I. Gavrilyuk, Yu. A. Dei, O. B. Mel'nikov, R. G. Ofengenden, Yu. V. Patlan', V. A. Sidorenko, I. P. Tkachuk, and V. V. Trishin.* **1987, No. 2, 276 [33].**

Use of AI-1024-95 Analyzer for High-Speed Parallel Recording of Several Spectra. *V. N. Kadushkin, A. Karakhodzhaev, and U. I. Faizullaev.* **1988, No. 1, 85 [79].**

Multichannel Analyzer for Measurement of the Frequency and Phase Characteristics of Charge-Density Waves in High-Current Relativistic Electron Beams. *S. S. Pushkarev, V. A. Bondarenko, N. P. Gadetskii, I. I. Magda, Yu. V. Tkach, and E. E. Korobova.* **1989, No. 3, 524 [31].**

Leveling Buffer Storage Device. *D. M. Podorozhnyi and I. V. Yashin.* **1990, No. 4, 829 [107].**

Use of AM-A-02F1 Multichannel Pulse Analyzer in Electron Spectroscopy. *A. V. Martynyuk, V. V. Martynyuk, and A. S. Filippov.* **1990, No. 6, 1359 [122].**

5.6.1. Amplitude analyzers

Methods of Eliminating Overlapping Pulses (Review). *M. E. Glushkovskii.* **1977, No. 3, 622 [13].**

Counting Errors in Amplitude Spectrometry of Pulses (Survey). *V. B. Ivanov, Yu. P. Sel'dyakov, and V. I. Shipilov.* **1979, No. 6, 1491 [14].**

Pulse-Height and Time Analyzer for Nuclear Radiation Semiconductor Detectors. *P. A. Votinov, V. K. Eremin, N. B. Strokan, N. I. Tisnek, and A. Sh. Shamagdiev.* **1977, No. 3, 676 [61].**

Unit for Coupling a 4096-Channel Analog-Digital Converter to the AI-1024 Storage. *A. M. Kalashnikov, I. Yu. Petrov, and A. K. Sheremet'ev.* **1978, No. 4, 946 [102].**

Method for Analyzing Distortions of Amplitude Spectra Due to Pulse Overlapping in Spectrometer Channel. *N. G. Volkov, V. V. Sin'kov, and S. N. Fedotov.* **1980, No. 1, 102 [105].**

Method for Measuring Energy Distribution of Emission Electrons Using an Amplitude Analyzer and Inverse Function Generator. *O. M. Sorokin.* **1981, No. 2, 387 [93].**

Multichannel Amplitude Analyzer Using the "MERA-60" Microcomputer. *B. V. Fefilov and Nguen Hak Thi.* **1982, No. 5, 1113 [67].**

Programmable Bivariate-Analysis Unit based on High-Speed Analog-Digital Converter. *P. A. Kulinich and R. Toledo.* **1988, No. 6, 1464 [85].**

Use of AM-A-02F for Amplitude Analysis by Signal Attribute. *I. N. Kadenko and E. I. Morgunov.* **1989, No. 2, 372 [105].**

Amplitude-Analysis System Employing Parallel Analog-to-Digital Converters for Detectors of Intense Particle Fluxes. *S. V. Donskov, V. A. Kachanov, Yu. D. Prokoshkin, V. D. Samoilenko, A. V. Sin'govskii, and V. P. Sugonyaev.* **1990, No. 2, 330 [90].**

5.6.2. Time analyzers

Multistop Systems for Statistical Time Analysis of Random Signal Flows (Survey). *V. V. Danilevich and E. V. Novikov.* **1987, No. 3, 497 [7].**

Time Coder with Variable Channel Width. *A. G. Balagurov, I. P. Barabash, and V. D. Shibaev.* **1977, No. 2, 415 [79].**

Monitoring Unit for Time-Interval Analyzers of Nanosecond Range. *A. I. Klimov and E. A. Meleshko.* **1977, No. 4, 1058 [125].**

Adjustable Multifunctional Pulse Distributor. *V. I. Afanas'ev, V. D. Pysin, and B. D. Brykanov.* **1977, No. 5, 1317 [78].**

Method for Increasing the Accuracy of the Time-of-Flight Method with Random Actuation of the Detector. *P. P. D'yachenko, V. S. Nesterenko, and V. M. Piksaikin.* **1981, No. 3, 664 [95].**

Multichannel Memory-Scanning Time-Mark Units. *N. I. Zamyatin.* **1987, No. 2, 313 [66].**

Dynamic Analog Memories for Time-Interval-Flow Analysis. *V. I. Pranovich.* **1987, No. 2, 321 [74].**

Allowance For Distortions of Time Spectra Obtained with Parallel Multistop Time-to-Number Converters. *V. Ya. Kezerashvili.* **1987, No. 3, 566 [66].**

Measuring Complex of Time-of-Flight Spectrometer for Study of Rare Fission Modes of Heavy Nuclei. *A. A. Aleksandrov, N. N. Demidovich, Yu. A. Korzhuk, Yu. F. Pevchev, Yu. V. Pyatkov, S. I. Sitnikov, A. I. Slyusarenko, S. L. Sharov, and A. N. Shemetov.* **1989, No. 4, 779 [44].**

CAMAC-Compatible Multistop Time-to-Number Converter. *V. G. Zinov and A. V. Selikov.* **1989, No. 5, 1125 [136].**

Time Analyzer with Continuous Digitization. *G. L. Bayatyan, K. T. Darbinyan, K. K. Mkrtchyan, and S. S. Stepanyan.* **1989, No. 6, 1330, [88].**

Restoration of Spectrum Parameters for Pulsed Fast-Neutron Fluxes in Time-of-Flight Measurements. *N. N. Kirichenko, V. K. Lyapidevskii, and V. B. Perezhogin.* **1990, No. 3, 543 [66].**

5.7. Counting circuits

120-MHz Decade Counter Using 2TK291 Integrated Circuits. *A. M. Koptyakov and V. L. Sorokin.* **1977, No. 1, 104 [95].**

Decade Counter with Liquid Crystal Readout. *A. A. Eremin and A. V. Vasyanin.* **1977, No. 2, 429 [92].**

Reversible Counter with Decimal Readout. *V. E. Semenov.* **1977, No. 2, 431 [94].**

Method for Triggering Ring Counters. *G. P. Feofilov and S. Sh. Paroder.* **1977, No. 2, 433 [96].**

Counter with a Time Window. *A. M. Kalashnikov and A. K. Sheremet'ev.* **1977, No. 5, 1326 [86].**

Counters with Controlled Scaling Factor. *V. N. Kostyukov and P. O. Reger.* **1977, No. 5, 1329 [89].**

D-Flipflop Decade Counter. *G. L. Mizyuk and N. I. Shcherbinin.* **1978, No. 1, 71 [70].**

Scaling Decade with LED Display. *V. B. Volkonskii, I. V. Selyutin, and V. V. Yakovlev.* **1978, No. 2, 384 [110].**

High-Speed Reversible Decade Counter. *V. V. Blatov and A. A. Chudov.* **1978, No. 3, 659 [103].**

Reversible Pulse Counter with Cyclic Code. *A. E. Korotynskii and V. V. Gudzevatyi.* **1978, No. 4, 965 [116].**

Apparatus for Counting and Coding the Number of Pulses. *Yu. M. Grashin, V. I. Dvoretskii, and O. A. Tyurikov.* **1978, No. 4, 967 [117].**

Binary–Decimal Adder–Subtractors. *V. V. Blatov and A. A. Chudov.* **1978, No. 5, 1260 [96].**

Decade Counter for up to 200 MHz. *V. V. Blatov and N. M. Shernyaev.* **1978, No. 5, 1269 [103].**

Digital Decade Pulse Counter with Long-Time Memory. *A. M. Izmailov, G. S. Ter-Israelov, and G. P. Kazarova.* **1978, No. 5, 1272 [106].**

Unit for Subtracting Two Pulse Trains. *N. F. Nikitenko, E. A. Skurko, and Yu. V. Titov.* **1979, No. 2, 414 [116].**

High-Speed Integrated-Circuit Decade Counter. *V. M. Lachinov.* **1979, No. 2, 416 [118].**

Simple Binary-Coded-Decimal Decade Counter. *N. N. Balamatov and V. Yu. Zalivako.* **1979, No. 2, 422 [124].**

Two-Way Counter with Digital Display. *A. Abdukayumov, R. G. Akhmedov, R. O. Sosnovskii, and A. A. Khalikov.* **1979, No. 3, 727 [104].**

Counting Decade Based on Microcircuits with Digital Display. *V. D. Sibirtsev and I. S. Rabtsevich.* **1979, No. 5, 1315 [120].**

Universal Integrated Circuit Decade Counter. *V. S. Kotov and L. Ya. Églitis.* **1980, No. 1, 137 [138].**

Counters and Dividers Based on Cyclic Registers with a Single Cross Connection. *S. U. Klimovich and I. P. Steklova.* **1980, No. 2, 394 [97].**

Binary Reversible Counter with Difference-Type Control Elements. *B. N. Gorbunov and R. A. Nikitin.* **1980, No. 4, 891 [81].**

Fast Reversible Decade Counter. *M. V. Melen'.* **1980, No. 5, 1140 [80].**

Digital Counter Decades with Operational and Long-Term Memory. *A. M. Izmailov, G. S. Ter-Israelov, and R. A. Babayan.* **1980, No. 6, 1378 [59].**

Counters with Adjustable Scaling Factor. *G. A. Kozin.* **1981, No. 2, 394 [100].**

Generators of Reversible Count Pulses from Quadrature Pulse Sequences. *I. D. Vol'vovskii.* **1981, No. 2, 414 [119].**

An Economical Storage Counter with Serial Readout. *V. D. Sibirtsev.* **1981, No. 5, 1199 [96].**

Portable Pulse Counter. *L. P. Gubin and E. I. Dolgirev.* **1982, No. 3, 595 [79].**

Electronic Counters with a Programmable Division Factor. *E. F. Shnyrev and A. F. Mamis.* **1982, No. 3, 597 [81].**

Simple Circuit for Dynamically Displaying Digital Data from One or Several Counters. *S. U. Klimovich and Yu. P. Surkov.* **1982, No. 4, 877 [90].**

Floating-Point Counters. *V. V. Kalugin.* **1982, No. 5, 1131 [83].**

Multimode Pulse Counter. *D. D. Natanzon.* **1982, No. 5, 1133 [85].**

Gray-Code Bidirectional Counter. *A. I. Gonchar, V. S. Nesterenko, and V. A. Fazkullin.* **1982, No. 5, 1135 [86].**

System for Determining the Difference between Two Pulse Trains. *I. Ya. Khaimzon, A. I. Kachkovskii, and S. L. Chumachenko.* **1983, No. 6, 1387 [123].**

High-Speed Pulse Count-Rate Meter with High Dynamic Range. *V. N. Rudkovskii, I. Ya. Nikiforov, and S. V. Khristich.* **1984, No. 1, 109 [104].**

Bidirectional Binary Counter with Variable Pulse Weight. *V. E. Mel'nik and Yu. A. Bryukhomitskii.* **1984, No. 1, 111 [106].**

High-Speed Parallel Counter. *B. N. Gus'kov, V. A. Kalinnikov, V. R. Krastev, A. N. Maksimov, and N. M. Nikityuk.* **1984, No. 6, 1397 [91].**

Reversing-Count Pulse Former for Microprocessor Systems. *S. L. Titov.* **1985, No. 2, 409 [135].**

High-Speed 8-Bit Programmable Pulse Counter. *A. Sh. Gongadze and Z. G. Nizamutdinov.* **1988, No. 6, 1473 [93].**

High-Speed Decade Scalers for Time-to-Number Converters. *V. S. Blagoveshchenskii and G. I. Kuznetsov.* **1989, No. 1, 117 [106].**

5.8. Coincidence circuits

On the System of Parameters of Modular Coincidence Circuits. *S. G. Basiladze.* **1977, No. 5, 1322 [83].**

Coincidence Circuits Based on Priority Time Discriminators. *E. Winkler, V. M. Grebenyuk, and V. G. Zinov.* **1979, No. 2, 406 [109].**

Pair-Coincidence Matrix. *S. V. Dementii, V. M. Denyak, A. V. Fartushnyi, and V. I. Ogurtsov.* **1979, No. 5, 1319 [123].**

Device for Recording the Time Distributions of Coincidences in a Multidetector System. *L. V. Krasnov and I. G. Yatsyshin.* **1979, No. 5, 1321 [125].**

Anticoincidence Circuits for Operational at High Detector Loads. *B. Yu. Baldin, A. I. Ronzhin, Z. V. Krumshtein, and Z. Tsisek.* **1981, No. 3, 658 [91].**

A Nanosecond Coincidence Circuit. *S. G. Basiladze, Nguen Tkhi Sha, and A. N. Parfenov.* **1981, No. 5, 1195 [92].**

Universal Coincidence Circuit. *Yu. A. Novikov.* **1982, No. 6, 1386 [69].**

Multichannel Synchronous Coincidence Circuit. *A. P. Klimakov, A. Yu. Medvedev, and A. V. Mednikov.* **1984, No. 4, 884 [91].**

Priority Switching in Measurement of Time Spectra of Gamma-Gamma Coincidences. *I. Gradets, V. G. Zinov, A. Misyak, and V. I. Stegailov.* **1986, No. 1, 72 [68].**

Majority Coincidence Circuit with Resolving Time of ≤10 nsec. *S. N. Fedotov and O. S. Toritsyn.* **1986, No. 3, 633 [114].**

High-Speed Logic Modules with Programmable Functions. *V. G. Zinov and A. V. Selikov.* **1987, No. 5, 1102 [81].**

5.9. Event-sampling circuits

Systems for Preselection of Desired Events in Accelerator Experiments (Survey). *V. A. Kantserov and A. S. Pershin.* **1987, No. 4, 755 [7].**

Fast Digital Processor for Sorting Events according to Particle-Count Difference. *S. G. Basiladze, B. N. Gus'kov, Li Wan Sung, A. N. Maksimov, and A. N. Parfenov.* **1978, No. 3, 653 [98].**

High-Speed Single-Input System for Pulse Identification. *N. I. Shchadin.* **1978, No. 4, 951 [106].**

Improved Charged-Particle Identification Device. *V. N. Radushkin, M. E. Kaganskaya, B. G. Skorodumov, Yu. N. Talanin, and I. I. Trinkin.* **1979, No. 1, 70 [68].**

Fast Universal Digital Coder for Processor Event Sampling Systems. *S. G. Basiladze and A. N. Parfenov.* **1980, No. 1, 84 [88].**

Time-of-Flight Scintillation Telescope with Logic Sampling Circuit. *D. Yu. Akimov and Yu. D. Kotov.* **1981, No. 2, 347 [58].**

A Specialized CAMAC-Standard Processor That Sorts Events by Solving Linear Inequalities. *S. G. Vasiladze, A. N. Narfenov, and A. V. Pilyar.* **1981, No. 4, 905 [76].**

Logic Components in Multichannel Electronic Equipment. *V. F. Boreiko, Yu. M. Valuev, V. M. Grebenyuk, and V. G. Zinov.* **1981, No. 6, 1399 [63].**

Identification of Heavy Charged Particles by Using a Fast Amplifier to Obtain E-and t-Signals. *A. S. Gass, V. N. Dobrikov, O. F. Nemets, P. N. Svetlichnyi, V. A. Stepanenko, and A. A. Shvedov.* **1982, No. 6, 1355 [41].**

Programmable Device for Rapid Preselection of Events. *Yu. A. Semenov, O. P. Fedotov, and V. N. Chudakov.* **1983, No. 2, 325 [79].**

Design of an Electronic Logic System for the RISK Spectrometer Using Event Preselector. *Z. V. Krumshtein, A. A. Nikolina A. A. Petrukhin, N. N. Khovanskii, and G. A. Shelkov.* **1983, No. 5, 1064 [61].**

Fast-Response Radiation-Identifying Instrument with Separate Integration of the Signal Components. *N. S. Biryukov and B. V. Zhuravlev.* **1983, No. 6, 1269 [22].**

Wide-Range Analog Identifying Unit for Measuring Mass Spectra of Nuclear Reaction Products. *E. A. Romanovskii, P. V. Vakulov, Yu. I. Denisov, N. B. Mazurchik, R. B. Begzhanov, I. R. Gulamov, T. Iskhakov, G. S. Valiev, and A. V. Tsupin.* **1983, No. 6, 1280 [31].**

Apparatus for Sampling Multiparticle Events with Production of Neutral Strange Particles. *Z. V. Krumshtein, R. Lyaiste, Z. Mikhaii, L. G. Tkachev, T. Ton, N. N. Khovanskii, B. A. Khomenko, and G. A. Shelkov.* **1984, No. 2, 341 [83].**

Preselector of Useful Events. *S. V. Alchudzhyan.* **1985, No. 2, 378 [108].**

General-Purpose Logic System for Preselection of Events. *V. I. Kotov, Yu. V. Mikhailov, P. M. Shagin, and A. V. Shchukin.* **1985, No. 6, 1313 [73].**

High-Speed Analog-Digital Processor for Event Sampling by Particle-Number Difference. *V. A. Kalinnikov and N. M. Nikityuk.* **1986, No. 1, 75 [71].**

High-Speed Special-Purpose Processor for Event Selection by Number of Direct Tracks. *V. A. Kalinnikov, V. R. Krastev, and E. A. Chudakov.* **1986, No. 3, 622 [105].**

Eight-Input Event Selector. *E. A. Arakelyan, G. L. Bayatyan, G. S. Vartanyan, and N. K. Grigoryan.* **1987, No. 1, 95 [89].**

Automatic Event-Sampling System for Gamma Telescope. *V. A. Grigor'ev, I. V. Kalinin, V. A. Kaplin, E. G. Klyuchnik, V. A. Loginov, P. Yu. Naumov, and M. P. Sharapov.* **1988, No. 5, 1136 [45].**

Use of Coincidence Circuit for Drift-Detector Signals for Particle Sampling by Momentum. *V. I. Kryshkin and A. I. Ronzhin.* **1989, No. 1, 68 [64].**

Identification of Signals from Scintillators with Different Deexcitation Times by Time Referencing to Mathematical Center of Gravity of Pulses. *V. V. Borog, V. V. Dronov, V. G. Lapshin, and V. I. Rykalin.* **1989, No. 5, 1071 [91].**

Event Selector based on Programmable Bivariate Analyzers for Detection of Cumulative-Proton Formation. *D. S. Denisov, O. V. Eroshin, P. A. Kulinich, R. Leitner, A. G. Ol'shevskii, S. A. Polovnikov, and R. Toledo.* **1989, No. 5, 1119 [131].**

Apparatus for Event Sampling in Experiment to Study $\mu^+\mu^-$ Pair Production on Magnetic Spectrometer with Streamer Chamber. *D. Adam, A. V. Bannikov, J. Behm, L. S. Vertogradov, S. Vyskochil, A. K. Dzhavrishvili, P. Zavada, Z. V. Krumshtein, T. A. Lomtadze, Z. Mikhaii, A. A. Nikolina, V. I. Petrukhin, K. Pishka, V. V. Tokmenin, N. N. Khovanskii, B. A. Khomenko, E. G. Tskhadadze, K. Shafrik, G. A. Shelkov, and J. Jani.* **1990, No. 4, 767 [54].**

Special-Purpose Processor for Particle Sampling by Momentum in an Experiment to Study Central Hadron Collisions. *S. V. Donskov, A. V. Inyakin, Yu. V. Mikhailov, A. V. Sin'govskii, V. P. Sugonyaev, P. M. Shagin, and A. V. Shtannikov.* **1990, No. 4, 816 [96].**

Multipulse System for n–γ Separation Based on Parallel Analog-to-Digital Converter. *V. G. Zinov, E. Lontski, and A. I. Rudenko.* **1991, No. 1, 84 [91].**

Circuit for Event Sampling in Muon-Catalysis Experiments. *A. I. Gilev, S. A. Ivanovskii, V. G. Zinov, A. I. Rudenko, and A. V. Selikov.* **1991, No. 4, 815 [73].**

6. ELECTRICAL MEASUREMENTS

Physical Resistance Standard based on the Quantum Hall Effect (Review). *I. Ya. Krasnopolin, V. M. Pudalov, and S. G. Semenchinskii.* **1987, No. 6, 1275 [5].**

Measurement by Means of Uncalibrated Transducers with Nonlinear Characteristics. *E. P. Krasnoperov.* **1977, No. 3, 846 [206].**

RATAN-600, New Radio Telescope of the Academy of Sciences. *A. B. Berlin, N. A. Eisepkina, Yu. K. Zverev, N. L. Kaidanovskii, D. V. Korol'kov, A. I. Kopylov, É. I. Korkin, Yu. N. Pariiskii, N. R. Ryzhikov, N. S. Soboleva, A. A. Stotskii, and O. N. Shivris.* **1977, No. 5, 1235 [8].**

Signal Transfer along Parallel Channels in Analog Equipment Using Charge-Coupled Devices. *V. B. Ivanov, V. L. Krayushkin, and N. L. Panteleev.* **1979, No. 2, 487 [181].**

Frequency-Matching Unit. *R. M. Gaiduchok, S. M. Il'kiv, and N. V. Kirianaki.* **1980, No. 6, 1391 [73].**

Eliminating the Effect of Trigger Noise. *I. F. Gavrilenko.* **1981, No. 4, 959 [128].**

Receiver for the Investigation of Fluctuations in Electromagnetic Wave Propagation Intensity and Direction. *I. N. Fetisov and A. Yu. Zrazhevskii.* **1981, No. 4, 987 [154].**

Meter for Unsteady Random Process Parameters. *V. P. Komlev and V. M. Deryabin.* **1983, No. 5, 1160 [146].**

Method of Measuring Spatial Distribution of an Electric Field in a High-Intensity Electromagnetic Wave. *E. F. Bol'shakov and S. I. Gritsinin.* **1984, No. 4, 876 [84].**

Devices for Wideband-Noise Protection. *A. P. Pokhilyuk and I. V. Trotsishin.* **1987, No. 1, 133 [121].**

Radioholographic Apparatus for Study of Two-Dimensional Fields. *V. I. Bogdanovich and I. F. Dobrovol'skii.* **1989, No. 2, 410 [138].**

6.1. Conversion of electrical signals

Automatic Range-Switching Converters (Review). *Yu. V. Safroshkin.* **1980, No. 2, 313 [24].**

Small-Signal Limiter with an Adjustable Threshold that Uses Photodiodes. *B. D. Zabegalov and N. I. Velikanov.* **1977, No. 2, 442 [104].**

Logarithmic Attenuator. *V. S. Egorov.* **1977, No. 2, 450 [112].**

High-Speed Controlled Attenuator. *V. E. Yamnyi, Yu. I. Belonosov, and É. I. Podol'nyi.* **1977, No. 3, 751 [127].**

Random Process Normalizer with Respect to Dispersion Having Large Dynamic Range. *A. S. Ageev, I. I. Volkov, and V. V. Motov.* **1977, No. 4, 1061 [127].**

Linear Voltage-Controlled Resistor. *N. M. Zolotova.* **1978, No. 1, 117 [116].**

Linear dc–ac Voltage Converter. *A. S. Gusev and A. V. Shmoilov.* **1978, No. 4, 958 [110].**

Voltage–Current Converter. *O. P. Novikov.* **1978, No. 5, 1277 [111].**

Programmable Attenuator. *A. A. Shakhin and A. Ya. Stul'.* **1979, No. 2, 458 [156].**

Expander for a Narrow-Band Telemetry System. *V. A. Brasletov.* **1979, No. 5, 1449 [236].**

Sensitive Temperature-Stable Threshold Cascade. *A. I. Zhernov, N. S. Pronkin, and A. P. Voronovich.* **1981, No. 6, 1457 [117].**

Signal-Level Normalizer. *D. P. Palyanitsa.* **1982, No. 6, 1414 [91].**

Zero Crossing Detector. *V. M. Gorodetskii.* **1983, No. 1, 119 [103].**

Precision Voltage-to-Current Converter. *A. N. Ermolaev and V. G. Gusev.* **1985, No. 3, 623 [113].**

Magneto-Optical Transducer for Alternating and Pulse Currents. *V. B. Arkhangel'skii, S. F. Glagolev, V. P. Zubkov, and T. G. Palei.* **1985, No. 6, 1363 [116].**

Modem-Type Transformerless DC Converter with Common-Isolated Output. *M. N. Barbashov, S. Yu. Batrakov, A. A. Lavrent'ev, and A. I. Proklin.* **1986, No. 4, 888 [123].**

Multichannel Analog Signal Measurement System with Intermmediate Frequency Conversion. *V. S. Korolev, A. N. Parfenov, Ya. Skron'ski, and V. Tlachala.* **1986, No. 6, 1311 [68].**

High-Speed Coordinate Converter for Scanning Instruments. *N. T. Danil'chenko and L. N. Lozovoi.* **1988, No. 5, 1316 [187].**

Low-Frequency Inductive Transducer. *V. I. Gromov, V. K. Lipskii, N. A. Mende, A. E. Moshinskii, M. F. Perminov, and D. E. Popovyan.* **1990, No. 1, 127 [128].**

6.1.1. Analog-to-digital converters

State of the Art and Prospects for Development of High-Speed Analog-to-Digital Converters (Review). *G. D. Bakhtiarov and P. A. Dzardenov.* **1982, No. 6, 1315 [5].**

Analog-to-Digital Converters. *N. M. Gromoglasov, S. L. Sud'in, and L. I. Sud'ina.* **1977, No. 1, 96 [87].**

Fast Analog–Digital Converter of Bitwise Balancing Using Integrated Microcircuits. *V. I. Borodatyi, I. R. Turchin, and V. V. Khomtsov.* **1977, No. 2, 419 [82].**

Position-Balance Analog-Digital Converter Using Large Integrated Circuits. *G. G. Bondarovich, N. A. Sokolova, and V. G. Tsyvinskii.* **1977, No. 3, 692 [76].**

High-Speed Parallel Analog-Digital Converter Using Serial Integrated Circuits. *G. D. Bakhtiarov and P. A. Dzardanov.* **1977, No. 3, 694 [78].**

Bipolar Analog-to-Digital Converter. *S. S. Katushonok, M. V. Komar, and A. G. Lariehkin.* **1977, No. 4, 1120 [180].**

Amplitude Digital Voltmeter. *V. G. Grinev and L. V. Grineva.* **1978, No. 1, 114 [113].**

Analog-to-Digital Converter with Differential Integrator. *N. I. Zheludkov.* **1978, No. 2, 355 [83].**

High-Speed Analog-to-Digital Converter. *M. I. Demchuk, V. N. Khaiminov, and V. N. Denisenko.* **1978, No. 2, 358 [85].**

Enhancement of the Linearity of an Analog-to-Digital Converter. *S. U. Klimovich and I. P. Steklova.* **1978, No. 2, 361 [88].**

Nanosecond Analog-to-Digital Converter with Gray Code Output. *A. P. Novitskii.* **1978, No. 3, 670 [113].**

High-Speed Analog–Digital Converter. *A. A. Golovanov, Yu. V. Zykov, V. A. Mil'chakov, and V. V. Churkin.* **1979, No. 1, 79 [77].**

Analog-to-Digital Converter with Cyclic Refinement of Result. *A. D. Azarov, M. E. Borodyanskii, and V. L. Onopko.* **1979, No. 2, 392 [96].**

Structural Method of Correction of Time-to-Pulse Type of Analog-to-Digital Converter with Preservation of Operating Speed. *I. V. Semerkov and O. P. Aleksandrov.* **1979, No. 2, 394 [98].**

High-Speed Analog–Digital Converter. *E. P. Vetlugin, A. I. Lavrushev, E. D. Marinina, P. M. Povidaiko, and A. N. Sobolev.* **1979, No. 2, 424 [126].**

Integrating Analog–Digital Converters Based on Chemotrons. *A. A. Konovalov.* **1979, No. 2, 427 [129].**

Digital–Analog Conversion Unit with Stabilization System and Digital Display. *V. F. Borzhkovskii, V. G. Vlasov, I. I. Zalyubovskii, N. K. Mukhachev, N. G. Stervoedov, A. I. Frolov.* **1979, No. 3, 729 [106].**

Successive-Approximation Amplitude-to-Digital Converter. *A. I. Gonchar.* **1979, No. 3, 734 [111].**

Statistical Averaging of Noise from Address Counter in Analog-to-Digital Converter with Amplitude-to-Time Conversion. *A. I. Gonchar, V. R. Trubnikov, and V. I. Regushevskii.* **1979, No. 3, 737 [113].**

Signal Amplitude-Digital Code Converter with Double Strobing. *A. N. Gil'manov and F. F. Gubaidullin.* **1980, No. 2, 401 [103].**

Parallel–Series Analog–Digital Byte Converter. *G. I. Gotlib and V. Ya. Zagurskii.* **1980, No. 3, 623 [78].**

Study of Dynamic Errors of Nanosecond Conveyer Analog–Digital Transducer. *A. P. Novitskii.* **1980, No. 3, 629 [83].**

Probabilistic Voltage-to-Code Converter. *A. N. Gavrilov, Yu. M. Korshunov, and A. V. Simkin.* **1980, No. 6, 1380 [61].**

Converter for Converting the Amplitude of Photomultiplier Signals into Code. *A. A. Silaev and O. A. Silant'ev.* **1981, No. 1, 103 [100].**

Unijunction Transistor Pulse Amplitude to Pulse Number Converter. *I. I. Obod.* **1981, No. 2, 408 [113].**

A High-Speed Parallel–Series Analog–Digital Convertor. *A. P. Gorshkov and I. K. Krylov.* **1981, No. 3, 676 [106].**

Economical Successive Approximation Analog-to-Digital Converters Implemented Using Integrated Circuits. *G. V. Basalaev and V. I. Glemba.* **1981, No. 6, 1424 [88].**

Universal Analog-Digital Converter. *Ya. I. Kapitskin and N. M. Danil'chuk.* **1982, No. 1, 115 [108].**

High-Accuracy Analog-Digital Converter with Analog Input Signal Convolution. *A. I. Diyanov, I. N. Mazov, Yu. V. Polubabkin, and V. P. Safronov.* **1982, No. 1, 118 [110].**

Integrated Circuit Analog-Digital Converter. *A. A. Golovanov.* **1982, No. 1, 121 [113].**

Using Integrated Circuits. *A. I. Antonevich, V. I. Butskii, and A. M. Sarzhevskii.* **1982, No. 1, 124 [115].**

Low-Power Analog-to-Digital Converter with Enhanced Speed. *E. A. Kolombet and B. K. Fedorov.* **1982, No. 1, 126 [117].**

Stand for Real-Time Control of Dynamic Error of Fast Analog-to-Digital Converters Using the Stroboscopic Effect. *A. Ya. Korsunskii and É. V. Sidorovskii.* **1982, No. 1, 128 [120].**

Methods for Improving Characteristics of Analog-to-Pulse Computing Devices. *V. D. Maisyukov and A. P. Shevchenko.* **1982, No. 2, 346 [64].**

Fast-Response Analog-Digital Converter. *D. I. Abramovich, A. I. Antonevich, V. V. Butskii, I. R. Gulakov, and N. V. Naumov.* **1982, No. 5, 1128 [81].**

Four-Phase Integrating Analog-to-Digital Converter. *O. V. Belenkov.* **1983, No. 1, 91 [86].**

Device for Automated Measurement of the Dynamic Error of Analog-to-Digital Converters. *A. M. Aminev and A. L. Timofeev.* **1983, No. 3, 585 [86].**

Combined Analog-Digital Converter. *A. V. Zhukov and S. N. Rzhendinskaya.* **1983, No. 4, 851 [101].**

Amplitude-Digital Converter with Impulsing Circuit. *G. L. Bashindzhagyan and N. B. Sinev.* **1983, No. 5, 1115 [106].**

High-Speed Series-Parallel Analog-Digital Converter. *M. I. Demchuk and V. N. Denisenko.* **1984, No. 1, 115 [110].**

High-Speed Spectrometer Analog-Digital Converter. *A. V. Zhukov, V. N. Makhov, and S. N. Rzhendinskaya.* **1984, No. 2, 346 [87].**

High-Speed Precision Analog-Digital Converter of Successive Approximations with Variable Conversion Step. *K. N. Stroev and O. A. Frolkov.* **1984, No. 2, 349 [90].**

Economical Analog-Digital Converter with an Optoisolated Data-Transmission Channel. *V. F. Borzhkovskii, V. G. Vlasov, N. K. Mukhachev, and N. G. Stervoedov.* **1984, No. 2, 350 [92].**

Multiple-Sampling Analog-to-Digital Converter for the Waveform Analysis of Solitary Signals. *V. M. Tarasov and V. K. Tomchakov.* **1984, No. 3, 610 [88].**

Widerange Current-Code Converter for a Scanning X-Ray Tomograph. *E. A. Andreev, V. K. Basenko, K. G. Kosharskii, S. A. Pshinichnyi, M. I. Skopyuk, S. P. Sit'ko, and V. A. Shevchenko.* **1984, No. 4, 881 [88].**

Multichannel Analog-Digital Converter with Buffer Memory. *V. L. Bruk, V. K. Vorob'ev, and V. G. Tishin.* **1984, No. 5, 1123 [71].**

Pulse-Height-to-Code Converter for Heavily Loaded Photomultipliers. *B. V. Arkhangel'skii, G. N. Evgrafov, Yu. M. Pishchal'nikov, and R. S. Shuvalov.* **1984, No. 5, 1136 [84].**

Wide-Range High-Speed Analog-to-Digital Converter. *V. P. Doroshev, A. M. Belov, A. A. Ivanova, and V. E. Yamnyi.* **1985, No. 1, 106 [106].**

Precision Analog-Digital Converter for Microcomputers. *V. I. Kosov, V. M. Malyashev, B. I. Pshenichnyi, and V. F. Shibakin.* **1985, No. 2, 388 [117].**

Multichannel Analog-Digital Converter. *V. R. Senchenko, V. F. Peklun, and S. V. Minenko.* **1985, No. 2, 402 [129].**

High-Speed Analog-Digital Converter with 60-dB Dynamic Range. *V. P. Doroshev, A. M. Belov, and V. E. Yamnyi.* **1985, No. 5, 1082 [86].**

High-Speed Bitwise-Balancing Voltage-to-Code Converter with Statistical Averaging of Differential Scale Nonuniformity. *V. V. Valakh and V. V. Danilevich.* **1985, No. 5, 1086 [90].**

High-Accuracy High-Speed Analog-Digital Converter. *A. A. Solodimov and Yu. V. Polubabkin.* **1986, No. 2, 381 [106].**

Floating-Point Analog-Digital Converter. *N. V. Dmitriev.* **1986, No. 2, 384 [109].**

Simple Analog-Digital Converter. *V. A. Popov and Yu. A. Kostenko.* **1986, No. 3, 636 [117].**

Multichannel Combined Analog-to-Digital Converter. *A. I. Ivanov, A. N. Pechenkin, and S. M. Yakovlev.* **1986, No. 6, 1335 [90].**

Fast Analog-to-Digital Converter with Input-Signal Extrapolation. *A. A. Solodimov, Yu. V. Polubabkin, and V. M. Shlyandin.* **1986, No. 6, 1338 [93].**

CAMAC-Compatible Quantizer Module Based on High-Speed Parallel Analog-Digital Converter. *Yu. A. Budagov, V. G. Zinov, M. Seman, A. A. Semenov, B. Sitar, and J. Spalek.* **1987, No. 1, 62 [59].**

High-Speed 10-Bit Analog-Digital Converter. *E. A. Meleshko and S. V. Oleinik.* **1987, No. 1, 89 [84].**

Sample-and-Hold Devices for 12-14-Bit Analog-Digital Converters. *A. A. Danilov.* **1987, No. 2, 309 [63].**

Four-Channel Analog-Digital Converter. *V. M. Kuleshov.* **1987, No. 2, 331 [82].**

High-Speed Parallel-Series Analog-Digital Converter. *A. Yu. Pogosov.* **1987, No. 3, 579 [77].**

Measurement of Settling Time of High-Speed Analog and Digital-Analog Converters. *A. A. Danilov, A. Yu. Pogosov, and D. E. Polonnikov.* **1987, No. 3, 589 [86].**

High-Speed Analog-Digital Converters for Measurement of Random-Signal Shape. *V. V. Valakh, V. F. Grigor'ev, and V. V. Danilevich.* **1987, No. 4, 848 [86].**

Fast Analog-to-Digital Converter for Physical Investigations. *V. V. Borimskii, V. I. Novoderezhkin, and V. V. Maevskii.* **1987, No. 6, 1353 [71].**

Floating-Point Analog-to-Digital Converter. *A. A. Golovanov and Yu. V. Zykov.* **1987, No. 6, 1355 [73].**

Multizone Scanning Converter whose Structure Adapts to Active-Component Malfunctions. *L. I. Tsytovich.* **1988, No. 1, 87 [81].**

Sampling Analog-Digital Converter. *K. N. Stroev and Yu. I. Kovalev.* **1988, No. 1, 97 [90].**

Device for Expansion of Dynamic Range of High-Speed Analog-Digital Converters. *V. P. Doroshev.* **1988, No. 2, 343 [74].**

Digital Converter for Dose-Rate Meter with Automatic Calibration. *D. D. Natanzon.* **1988, No. 4, 910 [76].**

CAMAC-Compatible Microprocessor Controller with Analog-to-Digital-to-Analog Channel. *V. L. Tsymbalenko.* **1988, No. 5, 1177 [78].**

Bipolar Analog-Digital Converter. *V. P. Ufimtsev and A. N. Budanov.* **1988, No. 5, 1220 [113].**

Analog-Digital Converter for Physical-Hydrology Probe. *G. E. Maiorov and L. I. Golovina.* **1988, No. 5, 1222 [114].**

Adaptive Analog-Digital Pulse Converter. *A. N. Kuznetsov.* **1989, No. 1, 127 [115].**

Fastbus-Compatible 16-Channel 8-Bit Analog-Digital Converter. *A. N. Parfenov and A. V. Pilyar.* **1989, No. 2, 364 [98].**

Analog-Digital Servo System. *V. M. Trokhin and V. I. Chuprun.* **1989, No. 2, 376 [109].**

Majorant Circuit in Analog-Digital Converter. *A. G. Golovko and T. A. Golovko.* **1989, No. 2, 378 [111].**

Use of Statistical Methods to Increase the Resolution of Analog-Digital Converters. *S. D. Dolgov, V. A. Morozov, and V. P. Fedosov.* **1989, No. 3, 580 [80].**

Device for Automatic Measurement of the Dynamic Error of Analog-Digital Converters. *V. E. Yamnyi, I. A. Levko, and Nguen Dang Kuang.* **1989, No. 3, 587 [86].**

Amplitude-to-Number Converter. *B. I. Gladkii, V. K. Goncharov, V. M. Kutsenko, and N. F. Rotai.* **1989, No. 4, 862 [115].**

CAMAC-Compatible Vernier Amplitude-to-Number Converter. *S. G. Basiladze and Yu. D. Shchukin.* **1990, No. 4, 808 [88].**

High-Speed CAMAC-Compatible Analog-to-Digital Converter. *S. G. Basiladze and Yu. D. Shchukin.* **1990, No. 5, 1081 [102].**

Tracking Analog-to-Digital Converter. *A. V. Filatov.* **1990, No. 5, 1090 [110].**

Micropower Amplitude-to-Number Converter with Wide Dynamic Range. *D. M. Podorozhnyi and I. V. Yashin.* **1990, No. 6, 1313 [84].**

Amplitude-to-Number Converter. *A. S. Glyanenko and A. I. Grigor'ev.* **1991, No. 2, 339 [101].**

Combined Analog-to-Digital Converter. *S. U. Klimovich and L. A. Borisyuk.* **1991, No. 4, 847 [103].**

High-Performance Self-Correcting Analog-to-Digital Converter. *R. I. Grushvitskii, A. N. Dedov, A. Kh. Mursaev, and O. V. Shishov.* **1991, No. 5, 1086 [98].**

6.1.1.1. Analog-to-frequency (time) converters

Voltage–Frequency Converter. *N. I. L'yanova.* **1977, No. 1, 120 [108].**

Voltage–Frequency Converter. *S. G. Saligov and D. I. Damirov.* **1977, No. 1, 122 [110].**

Accurate Pulse-Width Converter. *E. G. Mirzabekyan, R. G. Simonyan, and A. M. Gevorkyan.* **1977, No. 2, 421 [84].**

Converter of Resistance to Pulse-Repetition Period. *Li Wan Sung and E. A. Silaev.* **1978, No. 3, 675 [118].**

Current–Frequency Converter. *V. G. Zinov and B. S. Krasnoborodov.* **1978, No. 4, 954 [108].**

Linear Microcircuit Voltage (Current)–Frequency Converter. *V. G. Katrenko and T. A. Ismailov.* **1978, No. 4, 956 [109].**

Functional Voltage-to-Frequency Converter. *I. M. Abdullaev and R. M. Akhmedov.* **1978, No. 5, 1274 [108].**

Integrating Converter of Voltage into a Pulse-Width Modulation Signal without Precision Gates. *É. K. Shakhov.* **1978, No. 6, 1553 [90].**

Active-Resistance Converter into Frequency with Linearization of the Conversion Characteristic. *I. F. Ostrovskii, V. M. Frolov, and L. D. Garin.* **1979, No. 1, 149 [141].**

Linear Frequency–Voltage Converter for the Investigation of Nonstationary Adsorption and Desorption Processes. *M. N. Glazov and L. F. Ivantsov.* **1979, No. 1, 151 [143].**

Photomultiplier Current-to-Frequency Converter. *N. P. Kul'bachuk.* **1979, No. 2, 486 [180].**

Integrating Device for Converting Voltages into Time Intervals. *V. M. Frolov and A. B. Andreev.* **1979, No. 4, 1019 [134].**

Precision Voltage–Frequency Converter. *A. S. Martynyuk.* **1979, No. 6, 1569 [84].**

Converter Taking Pulse Amplitudes into Time Intervals with Automatic Control. *N. N. Balamatov and A. A. Sotsilenkov.* **1980, No. 2, 397 [99].**

Single Microcircuit Converters Converting Voltage into Pulse Repetition Period. *N. Kh. Asanov.* **1980, No. 3, 659 [111].**

Economical Integrating Current-Frequency Converter. *G. R. Gromov.* **1980, No. 4, 893 [83].**

Voltage–Frequency Measuring Converter. *L. B. Mashkinov and L. N. Gal'perin.* **1980, No. 4, 895 [85].**

High-Speed Voltage–Frequency Converter. *N. P. Beketov, A. M. Glazkov, G. I. Kuznetsov, and G. S. Patanov.* **1980, No. 5, 1158 [97].**

Fast Converter of Low Resistance into a Pulse Period. *S. A. Karavaikin and V. M. Frolov.* **1981, No. 2, 410 [115].**

Integrating Voltage–Time and Current–Time Converter. *A. B. Andreev, Yu. M. Krysin, and V. M. Frolov.* **1981, No. 3, 684 [111].**

3 pA-0.3 mA Current-Frequency Converter. *V. B. Gusev and A. I. Shaks.* **1982, No. 2, 364 [80].**

Voltage-to-Frequency Converter for a Digital Synchronic Detector. *S. N. Zobkov, N. V. Vinogradova, and A. I. Pikhtelev.* **1983, No. 4, 860 [111].**

Voltage-to-Frequency Converter for Analog Magnetometer. *V. A. Bogdenko.* **1988, No. 5, 1185 [84].**

Noise-Immune Voltage-to-Frequency Converter with Correction for Multichannel Measuring Systems. *O. V. Antonov, B. Z. Buzumurga, V. A. Burdeinii, I. I. Palamarchuk, O. Yu. Piskov, and M. F. Rybak.* **1989, No. 1, 133 [120].**

PAV-001 General-Purpose Amplitude-to-Time Converter. *O. V. Ignat'ev, A. V. Lysenko, A. D. Pulin, and Yu. A. Shevchenko.* **1989, No. 4, 853 [107].**

6.1.1.2. Functional analog-to-digital converters

Hybrid Computing Device for Root Extraction. *Yu. V. Troitskii, V. D. Drozdov, and V. N. Khaletskii.* **1977, No. 2, 447 [109].**

High-Speed Analog–Digital Converter with Logarithmic Scale. *Yu. I. Belonosov and V. E. Yamnyi.* **1979, No. 1, 81 [79].**

Logarithmic Amplitude–Time Converter of Radiation Intensity. *K. S. Klempner and I. M. Cherednichenko.* **1980, No. 3, 661 [113].**

Logarithmic Amplitude-Code Converter. *V. I. Volchenko.* **1981, No. 1, 104 [101].**

Functional Converter Using Digital-to-Analog Conversion Microcircuits. *B. I. Kudlak, V. A. Sitovenko, and Yu. N. Turchaninov.* **1982, No. 1, 132 [124].**

Square Root Extracting Analog-Digital Converter. *S. U. Klimovich.* **1984, No. 6, 1407 [101].**

Root-Mean-Square Pulse-Amplitude-to-Number Converter. *V. V. Trifonov and A. N. Gorbachev.* **1985, No. 1, 101 [101].**

Functional Analog-Digital Converter. *V. Ya. Groshev.* **1985, No. 4, 879 [133].**

Pulse-Time Analog-Digital Converter for Square-Root Extraction. *L. I. Sidorchuk and S. U. Klimovich.* **1986, No. 3, 634 [115].**

High-Speed Analog-Digital Converter with Variable Conversion Characteristic. *V. P. Doroshev.* **1988, No. 1, 100 [93].**

Programmable Function Generator. *N. I. Borodin and I. P. Bukanov.* **1991, No. 3, 562 [82].**

6.1.2. Digital-to-analog converters

Binary-Decimal Code-to-Voltage Converter Using Capacitor Switching. *Yu. N. Grekhov.* **1977, No. 2, 434 [97].**

Digital-to-Analog Converter with Linear Interpolation. *V. E. Yamnyi, É. I. Podol'nyi, V. V. Radkevich, Yu. I. Belonosov, and B. M. Borozdin.* **1977, No. 4, 1041 [110].**

Digital–Analog Converter with Power-Law Characteristics with Linear Interpolation. *V. E. Yamnyi, Yu. I. Belonosov, and A. G. Ivanov.* **1979, No. 1, 87 [84].**

Eight-Bit Digital–Analog Converter. *V. P. Martsenyuk and N. A. Morozov.* **1979, No. 2, 423 [125].**

Simple Digital-Code-To-DC Converter. *V. G. Koltunov, V. V. Kravchenko, and A. K. Maistrenko.* **1979, No. 3, 714 [94].**

Digital-to-Analog Converter for the Control System of Betatron Energy. *S. N. Belyaev, A. B. Kozin, V. A. Semenov, and A. A. Nechkin.* **1980, No. 6, 1335 [18].**

A Code-Frequency Converter. *É. O. Movsesyan.* **1981, No. 2, 404 [110].**

Code-to-Voltage Converter Based on Microcircuits. *V. I. Sidel'nikov.* **1982, No. 1, 134 [125].**

Digital-Analog Converter with Intermediate Number-Pulse Conversion. *V. V. Kravchenko.* **1983, No. 5, 1117 [108].**

High-Speed Digital-Analog Converter. *B. N. Lisenkov and L. B. Dubrovskii.* **1984, No. 1, 118 [113].**

Measuring the Setting Time of a High-Speed Digital-to-Analog Converter. *R. L. Poshyunas and V. V. Sagaitis.* **1984, No. 1, 121 [115].**

Use of an Instrument Interface in a Digital-Analog Converter Module. *A. I. Sergeev, L. I. Kostenko, A. G. Izbitskii, S. A. Kalugin, and V. A. Gridasov.* **1984, No. 2, 353 [95].**

Four-Channel Digital-to-Analog Converter Module Using an "Élektronika-60" Microcomputer. *A. V. Vishnevskii, A. P. Latyntsev, and V. G. Cherepanov.* **1985, No. 1, 84 [84].**

Sixteen-Bit Digital-Analog Converter. *A. N. Parfenov and A. V. Pilyar.* **1986, No. 2, 386 [111].**

Device for Logarithmic Representation of Binary Numbers in Analog Form. *A. Georgiev, N. I. Zhuravlev, V. G. Zinov, and A. V. Salamatin.* **1986, No. 3, 630 [112].**

Precision Method for Increasing and Real-Time Maintenance of Accuracy of Digital-Analog Converters. *V. P. Popov.* **1988, No. 4, 906 [72].**

Digital-Analog Integrator for Signal-Processing Systems. *V. A. Zhmud'.* **1989, No. 4, 841 [97].**

Digital-to-Analog Converter with Magnetic Comparator. *V. F. Veremeenko.* **1990, No. 1, 103 [109].**

6.1.3. Multipliers, logarithmic converters

Controlled Optoelectronic Divider of Alternating Voltage. *V. P. D'yakonov.* **1977, No. 1, 171 [152].**

Bipolar Logarithmic Amplifier with Wide Dynamic Range. *A. T. Kotov and V. L. Maslyak.* **1977, No. 2, 449 [111].**

Analog Voltage Multiplier. *Ya. L. Burtov and V. A. Mezinov.* **1977, No. 2, 451 [113].**

Analog Multiplier with Frequency Output. *L. I. Makeeva and V. V. Makeev.* **1977, No. 3, 769 [142].**

Logarithmic Converter Using Integrated-Circuit Operational Amplifiers. *A. N. Volgin, A. V. Vygovskii, and V. A. Domin.* **1978, No. 2, 425 [148].**

Analog Division Circuit with Two Controlled Attenuators with Field-Effect Transistors. *Yu. S. Volodyagin and V. N. Kudryavtsev.* **1978, No. 4, 1008 [152].**

Four-Quadrant Time-Pulse Multiplying Unit Using Integrated Microcircuits. *V. V. Pavlov and N. V. Belikov.* **1978, No. 4, 1011 [154].**

Four-Quadrant Analog Signal Multiplier. *V. N. Timonteev, V. P. Kuz'menko, and V. A. Tkachenko.* **1978, No. 4, 1013 [156].**

Analysis of Linearity of Four-Quadrant Analog Signal Multipliers. *V. N. Timonteev, V. P. Kuz'menko, and V. A. Tkachenko.* **1978, No. 4, 1016 [158].**

Amplitude and Balance Modulator without a Resonant Circuit. *I. A. Belozerov.* **1978, No. 5, 1340 [167].**

Four-Quadrant Analog Signal Multiplier. *V. B. Kashkin, A. A. Sukhovskii, and V. S. Trishkin.* **1979, No. 2, 457 [155].**

Synthesis of Functional Relations among Voltages Using an Analog Signal Converter. *V. I. Voronin.* **1980, No. 1, 110 [112].**

Logarithmic Converter. *V. S. Kotov.* **1980, No. 1, 141 [141].**

Functional Converter for a Sign Correlator. *A. T. Kotov and Yu. L. Krasil'nikov.* **1980, No. 1, 144 [144].**

Analog Squarer. *V. N. Galakhov and R. Sh. Tsvyk.* **1980, No. 3, 693 [140].**

Divider of Two Voltages with Analog-to-Digital and Digital-to-Analog Converters. *V. A. Sinovenko and Yu. N. Turchaninov.* **1980, No. 5, 1162 [101].**

Analog Multiplier. *I. K. Gerasin and V. N. Lapenko.* **1981, No. 1, 114 [110].**

Variable-Transconductance Two-Quadrant Divider. *I. K. Gerasin.* **1981, No. 1, 115 [112].**

A Multifunctional Converter. *I. K. Gerasin.* **1981, No. 4, 940 [110].**

Versatile Integrated-Circuit Function Generator. *Yu. A. Klyuev, V. Yu. Pavlenko, and N. S. Tanyanskaya.* **1981, No. 4, 942 [112].**

Quadratic Voltage Converter. *G. V. Razorenov and A. P. Zagainov.* **1981, No. 6, 1423 [86].**

Bipolar Logarithmic Current-to-Voltage Converter. *V. F. Alekseev, N. I. Gavrilin, G. N. Demidova, R. M. Nazargulov, M. N. Omel'yanenko, and A. I. Solomatova.* **1982, No. 2, 362 [78].**

Broadband Drift-Free Quadrator. *Yu. A. Kolesnikov and V. S. Laktionov.* **1982, No. 6, 1418 [95].**

Error Analyzer for Analog Signal Multipliers and Functional Converters. *V. P. Kuz'menko.* **1984, No. 1, 123 [117].**

Precision Logarithmic Current Converter. *A. V. Churbakov.* **1985, No. 4, 877 [131].**

Logarithmic Converter. *V. G. Ukolov.* **1987, No. 5, 1122 [98].**

Thermally Stable Logarithmic Converter of Analog Signals. *N. I. Khaliullin and A. V. Yakovlev.* **1989, No. 2, 480 [198].**

6.2. Measurement of electrical signals

Methods of Inhibiting Noise in Analog Measuring Systems (Review). *M. V. Gal'perin and O. Sh. Pkhakadze.* **1980, No. 4, 813 [7].**

Intermittency Coefficient Measurement Circuit. *A. D. Tishchenko, A. A. Zori, G. D. Fesivskii, N. T. Kireev, V. Z. Karchikyan, and G. M. Agafonov.* **1977, No. 1, 127 [115].**

Digital Integrator for Chemiluminescent Analysis. *V. A. Demin and A. F. Nechaev.* **1977, No. 1, 184 [162].**

Multichannel Electronic Integrator for Magnetic-Probe Measurements with Detection of Signals Masked by Noise. *N. P. Ponomarenko and I. E. Tishchenko.* **1977, No. 3, 780 [152].**

Apparatus for the Measurement of the Running Dose and the Mean Value of Infralow-Frequency Signals. *A. A. Konovalov, V. I. Turubarov, and S. A. Agapitov.* **1978, No. 4, 1018 [160].**

High-Speed Integrated-Microcircuit Comparator. *E. P. Vetlugin, A. I. Lavrushev, P. M. Povidaiko, G. N. Tychina, and N. V. Yasinskii.* **1979, No. 1, 85 [82].**

Apparatus to Measure Low-Noise Signal Levels in the Presence of a Periodic Sequence of Powerful Radio Pulses. *D. P. Sobolev and V. E. Semenov.* **1979, No. 2, 499 [191].**

Automated Module for Measuring and Recording Single High-Speed Processes. *T. V. Zmorovich, O. M. Kudelko, S. E. Radinskii, and V. M. Slobodyan.* **1981, No. 3, 696 [121].**

Multichannel Automatic Measuring System for Weak Signals in High-Voltage Circuits. *A. Yu. Volkov, S. K. Dimitrov, and A. V. Makhin.* **1981, No. 5, 1242 [136].**

Pressure Sensor for Electromagnetic Field. *V. S. Ashanin and V. A. Levinskii.* **1981, No. 6, 1563 [211].**

Sign Discriminator with Zero-Displacement Compensation. *M. V. Soldatenko.* **1982, No. 5, 1172 [116].**

Fast-Response Sign Discriminator. *N. E. Zhorov and M. V. Soldatenko.* **1982, No. 5, 1174 [118].**

Device for Measuring Low-Voltage Signals in High-Voltage Circuits. *V. G. Nikolaevskii, G. M. Churikov, and V. V. Kryzhko.* **1982, No. 5, 1176 [119].**

Comparison Device for Infrequently Repeating, Rapidly Fluctuating Signals. *A. P. Gorshkov.* **1983, No. 1, 106 [99].**

Measuring Noise with an Amplitude Discriminator. *A. K. Sheremet'ev.* **1983, No. 6, 1349 [91].**

Digital Recorder of Single Signals. *V. Ya. Starodumov.* **1984, No. 2, 319 [61].**

Discrete Averaging Differentiator. *Yu. A. Tuflin and A. I. Dobretsov.* **1985, No. 2, 399 [126].**

Modulated Meter for Strength of Weak Quasistatic Electric Fields. *R. F. Musin, V. A. Morozov, and A. N. Matlashov.* **1985, No. 4, 872 [127].**

Digital Difference-Integrator. *V. D. Bunin, V. N. Brezgunov, and Yu. F. Sigaev.* **1985, No. 5, 1131 [129].**

Weak-Signal Integrator. *V. G. Ivkin, I. V. Mozin, and Yu. M. Fedorishin.* **1986, No. 3, 725 [201].**

Systems for Amplitude and Time Measurement in Deep-Water Experiment. *A. M. Klabukov, L. A. Kuzmichev, and I. I. Trofimenko.* **1988, No. 4, 916 [80].**

Digital Recorder of Repeating Signals. *V. P. Safronov, S. V. Trubitskov, and A. A. Shul'man.* **1989, No. 5, 1171 [178].**

6.2.1. Measurement of parameters of passive electronic components

Expansion of Q-Meter Range. *Yu. G. Podkin and E. I. Fedingin.* **1977, No. 3, 799 [167].**

Stable Semiconductor Gigaohmmeter with Controllable Threshold Sensitivity. *B. A. Kipnis, L. D. Dunavetskii, I. Ya. Voronetskii, and P. M. Bondarchuk.* **1977, No. 3, 801 [169].**

Use of Noise-Normalization to Measure Low Q. *E. V. Aleksenko and G. I. Filippov.* **1977, No. 4, 1063 [129].**

Instrument for Measuring Small Active Resistances and Inductances over Range 0.1-50 kHz. *M. S. Kosilov, V. P. Ovsyankin, V. T. Grechnev, and V. V. Sinitsyn.* **1977, No. 4, 1127 [187].**

Pulse-Time Resistance-to-Voltage Converter. *L. I. Tsytovich and V. G. Maurer.* **1978, No. 1, 72 [71].**

Instrument for Measuring Specific Electrical Conductivity in Electrolyte Flows. *S. A. Gorozhankin and A. A. Zori.* **1978, No. 1, 145 [141].**

Analog Converter for Capacitive Transducers. *V. F. Ryadov.* **1980, No. 5, 1160 [99].**

10-MHz Total Conductivity Bridge. *A. N. Ponomarev, A. L. Aleksandrov, A. G. Zhdan, and N. A. Lushnikov.* **1981, No. 6, 1430 [94].**

Measurement of Differential Capacitance of Nonlinear Capacitors Using a Bridge Circuit. *A. S. Ruban and M. I. Ul'pe.* **1982, No. 4, 964 [166].**

Noise-Immune Teraohmmeter. *M. Kh. Anso.* **1983, No. 4, 916 [158].**

Measuring Q and Tuning of Oscillatory Systems. *D. D. Pilipko, V. F. Romanyuk, and E. N. Smirnov.* **1983, No. 5, 1164 [150].**

Instrumentation Capacitance–Voltage Converter. *A. I. Cheredov and A. V. Klement'ev.* **1984, No. 5, 1186 [128].**

Circuit for Recording Small Capacitance Variations. *A. V. Budanov, I. P. Kazanin, and B. M. Kolokol'nikov.* **1986, No. 6, 1445 [185].**

Automated Bench for Determination of Parameters of Multiterminal Networks. *V. D. Rudyk, A. A. Dryuchin, and N. A. Argat.* **1987, No. 2, 297 [52].**

Radio-Frequency RC Bridge. *A. E. Lun'kov and S. E. Milovanov.* **1987, No. 6, 1414 [125].**

Device for Measurement of High Q Values by Attenuation. *A. I. Kocherzhin, M. P. Kukhtin, V. P. Lobachev, and N. S. Repalov.* **1988, No. 2, 494 [195].**

Amplitude Discriminator-Counter of Damped Oscillations with High Noise Immunity. *I. P. Kazanin, V. A. Kleimenov, and Yu. K. Shlyk.* **1988, No. 3, 684 [140].**

Digital Instrument based on Self-Excited Transducer for Capacitance Measurement in the Presence of High Losses. *V. P. Parusov and V. N. Rep'ev.* **1989, No. 1, 136 [123].**

Resistance-to-Voltage Converter with Automatic Range Selection. *V. L. Stryuch, M. I. Grodzinskii, and V. I. Beloded.* **1989, No. 5, 1169 [175].**

Converter of Electrical Capacitance to Unified Voltage. *Kh. A. Ismailov, D. I. Damirov, and S. B. Salimov.* **1990, No. 4, 866 [138].**

Secondary Transducer for Capacitive Sensor. *A. B. Andreev, V. A. Baranov, and Vl. A. Baranov.* **1990, No. 6, 1432 [182].**

6.2.2. Measurement of parameters of active electronic components

Automatic Equipment for Studying Small Nonlinearities in Volt–Ampere Characteristics of a Tunnel Structure. *E. V. Kolla.* **1977, No. 3, 843 [203].**

Instrument for Measuring the Nonlinearity of a Volt-Ampere Characteristic Curve. *N. I. Segeda, S. L. Chernyuk, and A. N. Shirochenkov.* **1978, No. 3, 733 [168].**

Installation for Plotting Voltamperometric Characteristics of Magnetodiodes. *I. A. Karapatnitskii and A. D. Sartbaev.* **1978, No. 4, 1104 [238].**

Cathode-Ray Curve Tracer Based on an S1-37 Oscilloscope with Memory. *A. A. Antonov, A. L. Lyam, and A. N. Makarov.* **1979, No. 2, 492 [185].**

Cathode-Ray Curve Tracer for Recording the Volt–Farad Characteristics of p–n Transitions with Large Losses. *V. A. Dvinskikh, V. P. Parusov, and A. S. Sergeev.* **1979, No. 2, 493 [186].**

Measuring Negative Resistances of Two-Terminal Networks with an RZ-10 Instrument. *A. S. Kosov and I. A. Strukov.* **1979, No. 3, 772 [147].**

Device for Measurement of FET Transfer Characteristics. *A. A. Zaluzhnyi, V. I. Lavrukovich, and V. S. Sedyakin.* **1979, No. 4, 1082 [188].**

Method for Measurement of Semiconductor Diode Current–Voltage Characteristics. *V. V. Zaddé and E. A. Guseva.* **1980, No. 1, 248 [239].**

Method of Measuring the Ratio of the Maximum to Minimum Current in Gunn Diodes. *V. V. Kukushkin and B. B. Elenkrig.* **1980, No. 5, 1164 [103].**

Simple TTL Integrated Circuit Testers. *I. P. Skoletskii.* **1980, No. 5, 1228 [160].**

Synchronous-Detection Meter for Nonlinearity of Current–Voltage Characteristics. *N. I. Segeda, S. L. Chernyuk, and V. P. Zinchenko.* **1981, No. 4, 981 [148].**

A Method of Investigating the Current–Voltage Characteristics of Photosensitive Semiconductor Structures. *V. A. Manasson and A. I. Malik.* **1981, No. 5, 1303 [190].**

A Circuit for Measuring the Current–Voltage Characteristics of Tunnel Junctions. *V. N. Golovinov, S. A. Semiletov, and S. M. Shkornyakov.* **1981, No. 5, 1305 [192].**

High-Voltage Device for Measuring Punch-Through Voltages in Semiconductors. *V. P. Krylov and G. A. Maslov.* **1981, No. 5, 1309 [195].**

Recording of Current-Voltage Characteristics of Semiconductor Structures in Semilogarithmic Scale. *N. G. Filonov.* **1982, No. 1, 247 [216].**

Sensitive Bridge for the Plotting of Current–Voltage Characteristics. *A. I. Dobretsov, N. A. Tulina, and Yu. A. Tuflin.* **1982, No. 3, 660 [136].**

Transfer-Capacitance Meter for Field-Effect Transistors. *V. P. Parusov, V. N. Komarov, and V. N. Rep'ev.* **1985, No. 4, 867 [122].**

Compensated Cathode-Ray Curve Tracer. *A. K. Babak and A. G. Isaev.* **1985, No. 4, 963 [206].**

Measurement of Volt-Ampere Characteristics of Semiconductor Diode Structures with Nonohmic Substrate Contact. *Kh. G. Nazhmudinov and T. A. Polyanskaya.* **1986, No. 2, 491 [208].**

Determination of Distributed Base Impedance of Bipolar Transistors from Measured Spectral Noise Density. *R. N. Krasnokutskii, L. L. Kurchaninov, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1986, No. 6, 1360 [111].**

Measurement of Distributed Base Resistance of Uncased Bipolar Transistors. *L. L. Kurchaninov, V. V. Tikhonov, and R. S. Shuvalov.* **1988, No. 1, 164 [142].**

Determination of Distributed Base Resistance of Bipolar Transistors by Noise Measurements. *A. V. Korytov.* **1990, No. 4, 871 [143].**

Device for Measurement of Temperature Dependence of Volt-Ampere Characteristics of Semiconductor Diodes. *N. G. Filonov.* **1990, No. 6, 1412 [166].**

6.2.3. Current measurement

Electrometer Current Meters (Review). *M. Kh. Anso, M. E. Roos, O. V. Saks, V. G. Shor, and Yu. A. Khyammalov.* **1989, No. 6, 1257 [25].**

Stable Transformer-Type DC Transducer. *K. Ya. Volodina, S. V. Kalenov, A. V. Klyochkov, B. D. Omel'chenko, and L. I. Yakovenko.* **1977, No. 3, 785 [155].**

Two-Channel Instrument Current Transformer. *G. A. Kell and V. D. Privalov.* **1978, No. 3, 678 [121].**

Current Integrator Based on an F30 Digital Device. *M. S. Birulev and B. V. Fefilov.* **1979, No. 3, 759 [133].**

Contactless Measuring Device for Conversion of Constant Currents. *M. P. Vasil'ev, V. G. Ivkin, Yu. Kan, I. V. Mozin, and Yu. S. Obidenko.* **1979, No. 4, 1022 [137].**

Choice of the Optimum Method of Supplying a Transformer dc Pick-Up. *B. D. Omel'chenko and V. P. Savaneev.* **1980, No. 4, 954 [140].**

Integrating Electrometer. *A. A. Gol'din, E. S. Guzikov, and Yu. A. Isakov.* **1980, No. 5, 1166 [105].**

Logarithmic Picoammeter. *M. N. Drazhev and A. G. Kebedzhiev.* **1980, No. 6, 1395 [76].**

Self-Oscillating Current Transducer with Parallel Conversion Channels. *G. V. Suvorov, L. I. Tsytovich, O. I. Osipov, and V. P. Tushin.* **1981, No. 1, 117 [113].**

Accurate Wide-Band dc Current Measurer to 10 kA. *B. A. Baklakov, V. F. Veremeenko, M. M. Karliner, A. A. Litvinov, and S. P. Petrov.* **1981, No. 6, 1413 [77].**

Two-Stage Integrator for an X-Ray Tomograph. *E. A. Andreev, S. A. Pshenichnyi, S. P. Sit'ko, M. I. Skopyuk, and V. A. Shevchenko.* **1982, No. 6, 1412 [89].**

Analog Integrator for Tomographs. *E. A. Antreev, V. K. Basenko, S. A. Pshenichnyi, S. P. Sit'ko, M. I. Skopyuk, and V. A. Shevchenko.* **1983, No. 1, 95 [89].**

Magnetic Comparator for Direct Current. *L. N. Akhmanova, V. M. Lachinov, V. P. Savaneev, A. M. Starikov, and V. P. Filin.* **1983, No. 1, 108 [100].**

Wideband Converter of Charge of Particle Beam Incident on Faraday Cylinder to Pulse Number. *A. V. Shchagin and V. F. Lysenko.* **1985, No. 5, 1121 [120].**

Photocurrent Converter. *S. A. Poltinnikov.* **1987, No. 4, 909 [140].**

Contactless dc Ammeters. *V. V. Serkov.* **1991, No. 5, 1170 [169].**

6.2.4. Voltage measurement

High-Speed Noiseproof Comparators. *A. S. Nagaikin.* **1977, No. 2, 443 [106].**

Electrooptical Method of Measuring High-Frequency High Voltages. *V. A. Zaporozhchenko and A. V. Kachinskii.* **1977, No. 4, 1200 [255].**

dc Voltage Instability Meter. *A. G. Klyuikov.* **1977, No. 5, 1463 [197].**

Multichannel System for the Control of High Voltages. *G. M. Spirov and A. A. Cherkasov.* **1978, No. 6, 1541 [79].**

Device for Voltage Measurement over a Wide Frequency Range by the Contactless Method. *Yu. A. Bystrov, E. N. Zagranichnyi, and Yu. F. Radchenko.* **1979, No. 6, 1572 [87].**

Integrator System for Averaging Digital Voltmeter Indications. *V. V. Petrov and A. A. Zagrubskii.* **1979, No. 6, 1574 [89].**

Controlled Voltage Ratio Meter. *V. V. Tekin.* **1979, No. 6, 1596 [108].**

High-Speed Voltage Comparator Circuit. *V. K. Chepalov and N. R. Karpov.* **1980, No. 3, 653 [105].**

Comparator with Automatic Offset Correction. *A. V. Zhukov and V. N. Makhov.* **1980, No. 4, 928 [116].**

Voltage Ratio Meter. *V. E. Badulin, V. P. Kalinichenko, and A. P. Sergeev.* **1982, No. 1, 114 [107].**

Device to Measure the Relative Difference of Two DC Voltages. *A. M. Kovalev, Yu. I. Puchkov, and V. E. Perelyaev.* **1983, No. 6, 1351 [92].**

Amplitude-Difference Meter for Asymmetric Harmonic Voltage. *V. N. Silant'ev and L. I. Izmailov.* **1984, No. 3, 670 [137].**

Squid-Based Picovoltmeter for Measuring Resistance of Metals at Low Temperatures and Volt–Ampere Characteristics of Superconductor Structures. *I. Ya. Krasnopolin.* **1985, No. 6, 1427 [170].**

High-Voltage Meter with Optical Isolation. *V. G. Nikolaichenko, Yu. K. Klimenko, N. A. Fefelov, and A. B. Chilikin.* **1987, No. 5, 1136 [112].**

Electrogyration High-Voltage Instrument Transducer. *V. G. Nikolaichenko, B. E. Mikhalishin, A. B. Chilikin, B. G. Golota, A. B. Lopatin, and L. A. Makarenko.* **1988, No. 3, 650 [114].**

Self-Contained Meter with Automatic Correction of Systematic Errors. *A. V. Filatov.* **1988, No. 4, 900 [67].**

Voltage-Ratio Meter. *N. N. Balamatov and A. V. Nemitkin.* **1988, No. 4, 920 [84].**

High-Sensitivity Selective Voltmeter. *A. D. Ivliev, F. A. Tyutrin, and A. A. Starodubtsev.* **1989, No. 5, 1163 [170].**

6.2.5. Meters of peak, extremal, and effective values

Modulus-Forming Unit for Instantaneous Values of Alternating Voltage (Review). *Z. I. Dombrovskii and A. A. Stolyarov.* **1977, No. 4, 937 [14].**

Use of Nonlinear Operational Amplifier for Determining Extremal Values of Voltages and Their Functions. *V. I. Voronin.* **1977, No. 1, 173 [153].**

Peak Detector Extremator. *Yu. A. Alabuzhev and A. P. Bobrovskii.* **1977, No. 3, 783 [154].**

Precision Bipolar-to-Unipolar Signal Converter. *O. I. Nikolaichuk and S. S. Sliva.* **1978, No. 2, 446 [169].**

Strobing Peak Voltmeter. *V. G. Gol'dort, K. V. Kiryunikov, S. A. Kochubei, and P. L. Chapovskii.* **1978, No. 4, 960 [112].**

Extremator Based on Operational Amplifier with Nonlinear Feedback. *Yu. A. Alabuzhev.* **1978, No. 4, 1020 [162].**

Shaper of Actual Parameters of Random-Process Extrema. *A. V. Blokhin, M. I. Kolodin, V. A. Romanov, Yu. I. Rebrin, and V. I. Yanenko.* **1979, No. 2, 450 [149].**

Linear Infralow-Frequency Rectifier with Low Ripple Factor. *L. Yu. Shepelevskii and A. S. Yarygin.* **1980, No. 6, 1397 [79].**

Min-Max Indicator. *S. I. Vasil'ev and Z. I. Sidel'nikov.* **1983, No. 6, 1325 [70].**

Autodyne Photoresistor Detector. *Yu. S. Mikheev and F. P. Raksina.* **1984, No. 4, 915 [116].**

Precision Linear Detector. *V. K. Raevskii and M. G. Davtyan.* **1985, No. 5, 1129 [127].**

Wideband Linear Converter of RMS Voltages Implemented by Field-Effect Transistors. *V. I. Gubar' and E. G. Grekhova.* **1986, No. 4, 844 [84].**

Converter of Effective Value of Voltage. *Yu. V. Kashirin and V. S. Popov.* **1986, No. 4, 847 [87].**

Local-Peak Selector. *A. M. Borodin and B. M. Kazakov.* **1986, No. 4, 884 [120].**

Switching Peak Detector with Wide Frequency and Dynamic Ranges. *E. N. Anuchin and A. P. Pylov.* **1987, No. 1, 152 [138].**

Analog Device for Measurement of Extremal Values and Period of Infrasonic Signal. *A. G. Avetisyan, M. M. Miridzhanyan, and R. A. Simonyan.* **1987, No. 4, 890 [123].**

Wideband Linear Detector. *A. P. Nevezhin and V. S. Faidyuk.* **1987, No. 4, 894 [127].**

Peak-Value Meter. *V. F. Verbitskii and O. A. Sechko.* **1987, No. 5, 1134 [109].**

Differential Extreme-Value Indicator. *A. V. Blokhin.* **1988, No. 2, 492 [194].**

Device for Comparison of rms Values of Two ac Voltages. *E. I. Tsimbalist, A. N. Merzha, and I. Yu. Ivanov.* **1989, No. 4, 851 [105].**

Peak Detector. *V. A. Slyusarev.* **1990, No. 4, 859 [132].**

Peak Detector with Accelerated Discrete Charging. *V. P. Sidorov.* **1990, No. 6, 1349 [114].**

6.2.6. Synchronous and stroboscopic devices

Two-Channel Correlation Amplifier for Study of Low-Frequency Fluctuation Processes. *G. P. Zhigal'skii, A. V. Karev, and A. S. Fedorov.* **1977, No. 3, 763 [137].**

Synchronous Filter. *A. V. Kaptsov, V. A. Zakharov and V. V. Ivanov.* **1977, No. 4, 1085 [149].**

Tracking Amplitude and Phase Meter for Low-Frequency Sinusoidal Signals. *A. D. Ivliev and V. E. Zinov'ev.* **1978, No. 1, 102 [101].**

Pulsed Phase Detector. *A. V. Itskovich.* **1978, No. 2, 443 [166].**

Precision High-Speed Synchronous Detector. *O. L. Nikolaichuk.* **1978, No. 5, 1335 [162].**

Diagram of Synchronous Light Modulator. *G. N. Eritsyan, R. A. Melkonyan, Yu. R. Nazaryan, and A. A. Saakyan.* **1979, No. 1, 112 [108].**

Synchronous Detector of Low-Frequency Signals. *V. I. Gavrilenko and M. A. Ruban.* **1979, No. 2, 476 [171].**

Synchronous, Measuring, Alternating-Voltage Transducer. *A. A. Dmitriev and V. S. Maslov.* **1979, No. 2, 479 [174].**

High-Speed Synchronous Detector Using an Integrator with Memory Inverse Feedback. *I. L. Zaitsevskii and V. I. Turchanikov.* **1979, No. 6, 1563 [79].**

Digital Synchronous Detector. *E. N. Kotlikov, S. N. Moshkina, and V. A. Polishchuk.* **1980, No. 3, 683 [130].**

Switching Synchronous Detector. *V. A. Safonov and A. A. Dovgan'.* **1980, No. 3, 685 [132].**

Sampling Differentiating Converter. *V. D. Mel'nikov and B. N. Sevast'yanov.* **1980, No. 4, 918 [106].**

Synchronous Integrator. *V. V. Brailovskii, O. P. Zhuk, and A. R. Shelyag.* **1980, No. 4, 942 [129].**

Wideband Synchronous Detector of Sinusoidal Quadrature Components. *O. B. Tarutin.* **1980, No. 5, 1147 [86].**

Sinusoidal Voltage Envelope Integrator. *Yu. A. Grinchenko and O. V. Tuchin.* **1981, No. 6, 1416 [79].**

Three-Channel Strobed Nanosecond-Range Integrator. *B. I. Tsirkel' and A. M. Martsinovskii.* **1981, No. 6, 1419 [83].**

Synchronous FM Detector. *A. V. Mironov.* **1982, No. 1, 158 [140].**

Digital Synchronous Detection System. *F. F. Papp, N. I. Romanyuk, E. É. Kontrosh, and O. B. Shpenik.* **1982, No. 2, 370 [85].**

System for Nanosecond Pulsed Measurements with Digital Accumulation of Signal. *V. V. Ryl'kov, A. G. Zhdan, A. L. Aleksandrov, E. M. Bazarnyi, and I. B. Gulyaev.* **1982, No. 3, 736 [196].**

Synchronous Detector Having a Wide Dynamic Range. *Yu. K. Rybin and V. P. Budeikin.* **1982, No. 4, 933 [139].**

Multiple-Frequency Reference Signal Generator. *Yu. K. Rybin and V. P. Budeikin.* **1982, No. 4, 938 [143].**

High-Accuracy Synchronous Detector with Wide Dynamic Range. *Ch. O. Kadzhar, S. A. Musaev, and E. Yu. Salaev.* **1982, No. 5, 1155 [103].**

Compensated Synchronous Integrator. *V. V. Brailovskii, O. P. Zhuk, L. O. Tarko, and A. R. Shelyag.* **1982, No. 6, 1410 [88].**

Two-Channel Stroboscopic Attachment for Studying Infrequently Recurring Signals. *D. A. Il'in and V. V. Osipov.* **1982, No. 6, 1420 [96].**

Precision Synchronous Detector. *B. G. Ignatov and A. L. Aleksandrov.* **1983, No. 1, 97 [91].**

Wideband Phase-Shifter for a Quadrature Synchronous Detector with the Possibility of Second Harmonic Detection. *A. L. Aleksandrov, B. G. Ignatov, and Yu. P. Milov.* **1983, No. 3, 614 [113].**

Voltage-to-Frequency Converter for a Digital Synchronic Detector. *S. N. Zobkov, N. V. Vinogradova, and A. I. Pikhtelev.* **1983, No. 4, 860 [111].**

Phase-Sensitive Demodulation with Pulsed Samples for a Photoreceiver. *N. D. Tret'yakov.* **1983, No. 4, 903 [146].**

A Synchronous Amplifier with Digital Output. *A. Y. Alekseev and V. K. Khokhlov.* **1984, No. 1, 133 [120].**

Digital Accumulator of Recurrent Signals. *S. P. Prozorov.* **1984, No. 2, 355 [96].**

Digital Strobscopic Integrator for Noise Elimination and Recording of Periodic Signals. *M. V. Borisov and V. L. Tsymbalenko.* **1984, No. 3, 681 [146].**

Narrow-Band Amplifier with a Synchronous Filter for the Frequency Range 50 Hz to 6 MHz. *G. I. Telegin.* **1985, No. 1, 131 [121].**

Stroboscopic Converter for Low-Frequency Periodic Signals. *V. M. Pleshkevich and A. M. Shukh.* **1985, No. 2, 490 [209].**

Switching Full-Wave Synchronous Detector. *A. A. Pimonov and Yu. I. Solovetskii.* **1985, No. 3, 650 [136].**

Low-Frequency Phase-Sensitive Rectifier. *I. M. Fedorov.* **1985, No. 4, 874 [129].**

Sampling Attachment to Oscilloscope for Plotter Output. *V. B. Arkhangel'skii, S. F. Glagolev, V. A. Panov, and M. M. Chervinskii.* **1985, No. 5, 1209 [198].**

Sampling Spectral-Line Intensity and Width Meter. *K. P. Kureichik, A. S. Khomyak, and N. V. Kozlovskii.* **1985, No. 6, 1401 [147].**

Use of Digital Integrator as a Low-Pass Filter. *V. L. Tsymbalenko.* **1986, No. 4, 871 [109].**

Code-to-Time Converter for Stroboscopic Attachment. *E. V. Chikhrai.* **1986, No. 5, 1074 [85].**

Digital Demodulator. *Yu. N. Shcherbich and S. V. Kholondyrev.* **1987, No. 1, 197 [181].**

Digital Accumulator with Successive Moving Pulse Summation. *V. P. Demchenkov and I. N. Korobkov.* **1987, No. 2, 328 [79].**

Stroboscopic Integrator to Register Nuclear-Resonance Signals. *V. P. Anferov and S. V. Molchanov.* **1987, No. 3, 646 [134].**

High-Speed Digital Synchronous Detector. *V. V. Borimskii, V. I. Novoderezhkin, and V. V. Maevskii.* **1988, No. 3, 677 [133].**

Synchronous Demodulator with Additive-Error Correction of Pulse Spectrometer. *K. P. Kureichik, N. V. Kozlovskii, and M. M. Mavlyutov.* **1988, No. 4, 903 [69].**

Suppression of Instability in Experimental Sampling Devices. *V. S. Gornakov and A. A. Polyanskii.* **1988, No. 6, 1549 [156].**

Low-Frequency Synchronous Amplifier with a Low Level of Drift. *V. P. Kuz'kov.* **1989, No. 1, 173 [153].**

High-Speed Digital Accumulator with Moving Summation. *A. S. Ageev.* **1989, No. 2, 374 [107].**

Synchronous Detector for Ferroprobes with Unipolar Pulse Excitation. *V. V. Yakovenko, A. V. Loiko, L. V. Donskaya, and V. Ya. Gal'chenko.* **1989, No. 6, 1349 [104].**

Amplitude- and Phase-Measurement Unit for Two-Channel Synchronous Amplifier. *V. G. Eremenko, V. A. Sokirkin, and P. N. Chuprov.* **1991, No. 4, 849 [105].**

Digital Synchronous Accumulator. *Yu. M. Kobzar', V. G. Kovtun, and N. I. Pashechko.* **1991, No. 5, 1067 [84].**

6.3. Measurement of time, frequency, and phase

6.3.1. Time measurement

AL304 Luminous-Diode Digital Indicator in Microcircuit Time-Counting Devices. *S. G. Zaluzhnyi.* **1977, No. 1, 111 [100].**

Instrument for Measuring Time Intervals to an Accuracy of 2 nsec. *Yu. N. Artyukh, M. A. Arnit, G. I. Gotlib, and V. Ya. Zagurskii.* **1977, No. 4, 1039 [108].**

Optically Coupled Electronic Chromometer. *G. S. Dragun.* **1978, No. 1, 118 [118].**

High-Speed Device for Time Interval Measurement. *E. I. Kovrigun, V. S. Chernyshev, and Yu. V. Shumkin.* **1979, No. 2, 484 [178].**

Digital Device for Measuring Time Intervals. *S. V. Denbnovetskii, S. M. Kokoshkin, and A. N. Shkuro.* **1979, No. 4, 1012 [127].**

Time-Interval Measurement by Regressive Coincidence. *N. R. Karpov, Yu. D. Matyukhin, and N. N. Povarenkin.* **1979, No. 5, 1317 [121].**

Fifteen-Channel Interval Timer. *An Sen Kuk, S. G. Vasiladze, Li Van Sun, Nguen Tkhi Sha, and Pak En Un.* **1980, No. 5, 1153 [92].**

Interpolating Time Interval Meter Based on an Élektronika B3-21 Calculator. *S. V. Denbnovetskii, S. M. Kokoshkin, Yu. I. Solomko, and A. N. Shkuro.* **1981, No. 1, 78 [76].**

Photocurrent Relaxation Time Constant Meter. *V. M. Zykov and N. T. Yunda.* **1981, No. 3, 714 [138].**

A Multichannel Time Interval Recorder. *L. P. Volkov, A. M. Koptyakov, N. N. Platonov, V. K. Melkozerov, A. N. Potanin, P. N. Senichev, and V. L. Sorokin.* **1981, No. 6, 1433 [96].**

System for Measuring Coordinated Time. *G. S. Dragun, V. Ya. Bol'shakov, and Yu. A. Fedorov.* **1982, No. 1, 143 [127].**

Signal Delay Regulator In Electronic Circuits. *Yu. D. Kotov and O. N. Romanov.* **1982, No. 2, 357 [74].**

Device for Determining the Event Time of the Absolute Maximum in a Realization of a Stochastic Process. *O. V. Shchukin.* **1985, No. 2, 397 [124].**

Reference-Function Generator for Measuring Time Intervals of Random Processes. *L. G. Goverdovskaya, and A. G. Strochilo.* **1985, No. 4, 864 [120].**

Four-Channel Time-Interval Meter with Picosecond Resolution. *P. K. Man'yakov and V. Tlachala.* **1986, No. 5, 1068 [79].**

High-Speed Device for Locking onto Pulse Trailing Edge. *A. N. Egorychev and L. S. Priver.* **1987, No. 4, 833 [73].**

Two-Scale Wideband Synthesizer of Standard Time Intervals with Nanosecond Resolution. *V. F. Grigor'ev and V. V. Danilevich.* **1989, No. 1, 123 [112].**

Stable Time-Interval Calibrator. *L. S. Subbotin and A. A. Tungusov.* **1989, No. 6, 1340 [96].**

Precision-Time-Interval Generator. *Do Hoang Kyong and S. I. Merzlyakov.* **1990, No. 2, 350 [107].**

Time-Sequence Meter. *M. Yu. Ushakov and A. V. Mokrousov.* **1990, No. 5, 1074 [97].**

Recorder of Pulse Arrival Times. *V. G. Shcherbitskii.* **1991, No. 4, 823 [81].**

6.3.2. Time-interval converters

Wide-Range High-Resolution Time-to-Number Converter. *V. M. Aul'chenko.* **1977, No. 1, 86 [79].**

Time-Amplitude-Time Converter with Large Conversion Coefficient. *V. G. Demenkov, Yu. S. Kulabukhov, V. S. Nesterenko, L. A. Timokhin, and S. I. Chubarov.* **1978, No. 3, 665 [109].**

Vernier Converter for Nanosecond Time Intervals. *V. N. Vishnevskii and G. I. Khodak.* **1978, No. 3, 668 [112].**

Recirculation Measuring Transducer Converting Short Time Intervals into Code. *N. R. Karpov.* **1980, No. 2, 399 [101].**

Nanosecond Range Time–Amplitude Converter. *N. N. Balamatov and V. Yu. Zalivako.* **1980, No. 3, 657 [109].**

Nanosecond Time–Amplitude Converter. *Yu. K. Akimov and S. I. Merzlyakov.* **1980, No. 5, 1155 [94].**

Logarithmic Time Converter. *G. I. Il'kanaev.* **1981, No. 1, 108 [105].**

Time-Digital Code Converter Unit. *A. A. Silaev and O. A. Silant'ev.* **1981, No. 2, 406 [111].**

Start–Stop Time–Amplitude Converter with High Permissible Count Rate. *A. P. Degtyarev, T. V. Makhrinskii, and V. A. Shevchenko.* **1981, No. 3, 674 [104].**

Time Interval-Voltage Converter. *A. T. Matchak.* **1982, No. 1, 112 [105].**

Nanosecond Time-to-Amplitude Converter with Preliminary Time Selection. *A. N. Semenikhin, S. V. Svirida, and E. B. Klopikov.* **1982, No. 2, 366 [82].**

Stable Time-to-Amplitude Converter with High Load Capacity. *A. N. Semenikhin, S. V. Svirida, and E. B. Klopikov.* **1982, No. 4, 879 [92].**

A Fast Time-Interval Digitizer. *T. M. Dem'yanchuk, K. V. Tkachenko, and S. M. Belei.* **1983, No. 2, 332 [86].**

A Wide-Range Start-Stop Time Interval Digitizer. *G. N. Evgrafov and V. A. Kantserov.* **1983, No. 2, 334 [88].**

High-Speed Recirculating Converters of Single Time Intervals. *G. N. Abramov.* **1984, No. 5, 1132 [80].**

Time-Scale Converter. *I. V. Peretyagin and A. N. Tsybul'nik.* **1985, No. 3, 616 [107].**

25-Channel Time-to-Digit Converter. *O. V. Vedeneev, S. I. Matsenov, and R. I. Chernykh.* **1985, No. 6, 1330 [88].**

Time-to-Amplitude Converter. *N. G. Goleminov and V. Yu. Chepel'.* **1986, No. 5, 1073 [83].**

Wideband Time-Scale Converter. *M. V. Korolev.* **1987, No. 1, 103 [96].**

Nanosecond Time-Interval Converter. *T. M. Dem'yanchuk, A. V. Bienko, and M. D. Prokopiv.* **1987, No. 4, 839 [78].**

Multistop Spectrometric Time-to-Number Converter for Range of 0.5 nsec to 1 msec. *V. V. Danilevich and E. V. Novikov.* **1988, No. 1, 92 [86].**

Pulse-Counting Time-to-Number Converter with 2-nsec Channel Width. *A. I. Klimov, E. A. Meleshko, and A. G. Morozov.* **1988, No. 3, 618 [89].**

PVK-001 General-Purpose Time-to-Number Converter. *O. V. Ignat'ev and A. D. Pulin.* **1989, No. 4, 859 [112].**

High-Speed Time-Interval Converter. *T. M. Dem'yanchuk, A. V. Bienko, and M. D. Prokopiv.* **1990, No. 5, 1084 [105].**

Multistop Time-to-Number Converter with Interpolator Based on Parallel Analog-to-Digital Converter. *V. G. Zinov and A. V. Selikov.* **1991, No. 1, 100 [105].**

Wideband Multistop Time-to-Number Converter. *E. G. Zverev and A. I. Dryannov.* **1991, No. 2, 331 [94].**

Multipulse Generator for Calibration of Time-to-Number Converters. *V. G. Zinov and A. V. Selikov.* **1991, No. 3, 552 [73].**

Time-Interval Measurement Using High-Speed Counters of Series 193. *K. N. Stroev and N. N. Stroev.* **1991, No. 3, 566 [86].**

6.3.3. Frequency measurement

Frequency Difference and Ratio Meters Using Thyristors. *V. N. Kul'gavchuk.* **1977, No. 1, 117 [105].**

Pulse Frequency Discriminator. *D. M. Vernik, B. S. Sedykh, and Yu. M. Kiselev.* **1977, No. 1, 144 [130].**

Microcircuit Wide-Band Discrimination of Zero Beats. *V. N. Ptitsyn.* **1977, No. 1, 177 [157].**

Frequency-to-Voltage Converter. *A. M. Tishenko, A. I. Ovcharenko, V. M. Trokhin, and A. K. Solov'ev.* **1977, No. 2, 438 [101].**

Counter of Radio Pulse Carrier Frequency. *V. V. Blatov and A. A. Chudov.* **1978, No. 3, 702 [141].**

Adaptive Digital Frequency Meter. *E. D. Baran and A. A. Chaika.* **1978, No. 4, 942 [98].**

Apparatus for the Measurement of the Frequency Ratio of Two Pulse Sequences. *V. S. Sukhotin and P. V. Mironov.* **1978, No. 6, 1551 [88].**

Discrete Frequency Discriminator Using Microcircuits. *M. I. Andreev.* **1979, No. 1, 122 [116].**

Thyristor Frequency Meter with Improved Linearity and Increased Output Current. *V. M. Kul'gavchuk.* **1979, No. 1, 154 [146].**

Frequency Meters with Transistorized Release Device and Constant Ampere-Second Area. *V. M. Kul'gavchuk.* **1979, No. 1, 156 [147].**

Converter of Small Carrier-Frequency Shift to Constant Voltage. *F. V. Smirnov and S. S. Sulakshin.* **1979, No. 2, 429 [131].**

Low-Frequency Digital Frequency Meter. *E. R. Inozemtsev and O. S. Babaeva.* **1979, No. 5, 1358 [156].**

Analog Device for Measuring Relative Frequency Deviation. *P. A. Prokhorenkov and A. M. Kovalev.* **1980, No. 2, 440 [137].**

Frequency–Voltage Converter. *A. M. Bunyak, V. P. Koval'chuk, and A. N. Lupenko.* **1980, No. 4, 897 [87].**

A Fast Follow-Up Frequency Meter. *G. G. Vorob'ev.* **1981, No. 4, 978 [145].**

Amplitude-Modulated Frequency Detector for Magnetic Measurements. *K. M. Golant.* **1981, No. 5, 1245 [139].**

Frequency Comparator. *A. P. Pecherskikh.* **1982, No. 1, 157 [138].**

Synchronous FM Detector. *A. V. Mironov.* **1982, No. 1, 158 [140].**

Automatic Subrange Switching in an Analog Ratemeter. *R. A. Markova and L. M. Paska.* **1982, No. 2, 401 [113].**

Multiple-Frequency Reference Synthesizer. *A. A. Galitskas.* **1983, No. 6, 1337 [80].**

Instrument for Measuring Small Frequency Fluctuations. *A. V. Voronin, S. E. Goncharov, and V. M. Kuznetsov.* **1983, No. 6, 1341 [83].**

Measuring Small Frequency Drifts of Resonators. *G. N. Korostelev and V. A. Romantsev.* **1984, No. 3, 673 [139].**

Analog Meter for the Instantaneous Value of a Low Frequency. *A. G. Radchenko.* **1984, No. 6, 1411 [104].**

Analyzer of Pulse Repetition Frequency or Duration for Digital Systems. *R. Sh. Bulgakov.* **1986, No. 1, 81 [76].**

High-Speed Frequency-to-Voltage Converter. *A. I. Dvorson.* **1986, No. 1, 84 [78].**

Digital Frequency-Pulse Converter. *N. I. Karpukhin, V. P. Marfin, and F. Z. Rozenfel'd.* **1986, No. 6, 1329 [85].**

High-Speed Frequency-to-Voltage Converter. *S. N. Gryzov, V. K. Chistyakov, and Yu. S. Pesotskii.* **1987, No. 1, 146 [132].**

Increased Speed for Capacitor Frequency-to-Voltage Converter. *L. A. Maksimova and V. F. Skupoi.* **1988, No. 4, 914 [79].**

General-Purpose Doppler Frequency Meter. *V. A. Zhmud' and E. N. Utkin.* **1989, No. 4, 844 [100].**

6.3.4. Phase measurement

Generation of Reference Oscillation in Statistical Analysis of Phase Fluctuations (Review). *Yu. M. Veshkurtsev.* **1977, No. 3, 615 [7].**

Counter for Digital Phasemeter with Indicator Using Seven-Segment Luminescent Vacuum Lamps. *V. B. Babanin, V. I. Musonov, and V. A. Chizhikov.* **1977, No. 1, 114 [103].**

Phase Meter with Reduced Error from Nonlinear Input-Signal Distortion. *A. M. Fishtein.* **1978, No. 1, 105 [104].**

Integrated-Microcircuit Phase Detector. *I. A. Morozov.* **1978, No. 6, 1562 [98].**

Phasemeter without Frequency Conversion in the 20 Hz-60 MHz Band. *A. M. Fishtein.* **1979, No. 3, 762 [137].**

Phase-to-Voltage Converter Using Combinational Logic. *V. V. Khilil'.* **1980, No. 6, 1382 [63].**

Phase-to-Voltage Converter with an Unambiguous Reading over an Extended Range. *V. F. Denisov and V. V. Khilil'.* **1981, No. 1, 111 [107].**

Fast Pulse-Phase Discriminator. *E. P. Vetlugin, A. I. Lavrushev, and T. P. Yartsun.* **1981, No. 4, 949 [119].**

Use of a Digital Adder in Fast Phase–Voltage Converters. *V. V. Khilil'.* **1981, No. 6, 1427 [91].**

Wideband High-Speed Phase Difference-Voltage Converter. *V. I. Mordvova, N. N. Shtarev, and V. F. Sivertsev.* **1984, No. 3, 668 [135].**

Phase Detector with Expanded Measurement Range. *Sh. Kh. Zakirov and R. F. Shayakhov.* **1986, No. 5, 1125 [129].**

High-Speed Phase-to-Voltage Converter. *V. V. Khilil' and V. F. Denisov.* **1987, No. 1, 139 [126].**

Microwave Pulse Phase Meter. *B. V. Prosin and S. A. Chernyi.* **1987, No. 4, 895 [128].**

Self-Excited Phase-to-Frequency Converter. *E. S. Kolesnik and K. V. Skul'skii.* **1987, No. 6, 1360 [78].**

Phase-Difference Meter for Signals with Arbitrary Frequency Ratio. *V. F. Verbitskii and O. A. Sechko.* **1988, No. 5, 1206 [100].**

Digital Discrimination of Phase-Shift Sign. *V. V. Tregub, E. V. Khomenko, S. V. Chernysh, and Yu. M. Kul'geiko.* **1989, No. 2, 380 [112].**

Modulation Method for Measurement of Phase Characteristics. *L. D. Ogorodniichuk.* **1990, No. 2, 374 [127].**

Phase-to-Voltage Converter with Phase-Transition Discriminator. *V. V. Khilil' and V. F. Denisov.* **1990, No. 5, 1094 [114].**

Stroboscopic Phase Tracking System. *A. G. Ivanov and V. L. Loladze.* **1991, No. 1, 112 [117].**

6.3.5. Phase shifters

Phase Shifter for Synchronous Detector. *I. D. Borinets, I. Ya. Kozyr', and V. N. Fedorov.* **1977, No. 1, 176 [156].**

Quadrature Sinusoidal-Voltage Phase-Shifter at Frequency of 20 Hz-200 kHz. *V. I. Kenzin, S. P. Novitskii, and I. I. Burenkov.* **1977, No. 3, 776 [148].**

Wideband Phase Shift Circuit. *V. A. Ivanov and I. I. Tarasenko.* **1978, No. 1, 112 [111].**

Phase Shifter with Stable Gain. *V. V. Brailovskii, O. P. Zhuk, and A. R. Shelyag.* **1978, No. 3, 718 [155].**

Controllable Digital Phase Shifter. *V. S. Batrachenko and T. V. Zarubina.* **1978, No. 5, 1344 [171].**

Digital Phase Shifter for a Precision Calibrator of Phase Shifts. *N. V. Maslov and R. P. Prikhnenko.* **1978, No. 5, 1346 [172].**

Range Shaper of Orthogonal Voltages. *L. E. Bykova and S. S. Kuznetskii.* **1979, No. 2, 452 [151].**

Code–Phase Converter. *A. T. Matchak and T. I. Tomson.* **1979, No. 3, 715 [95].**

Pulsed Phase Shifter. *V. I. Zametin and A. N. Putilin.* **1979, No. 5, 1339 [141].**

Efficient Miniature Decimeter-Band Phase Shifter. *S. V. Karmazin and B. I. Smiyan.* **1979, No. 6, 1652 [155].**

Formers for Quadrature Components of a Signal with Phase Doubling. *V. F. Otchalko, N. N. Shtarev, and N. N. Lyapin.* **1980, No. 3, 698 [144].**

Wide-Band Quadrature Device. *A. G. Kopanev, V. M. Sapel'nikov, A. M. Muftakhov, and G. I. Zhuravlev.* **1980, No. 6, 1389 [71].**

Wideband Phase-Shifter for a Quadrature Synchronous Detector with the Possibility of Second Harmonic Detection. *A. L. Aleksandrov, B. G. Ignatov, and Yu. P. Milov.* **1983, No. 3, 614 [113].**

Wideband Phase Shifter. *S. G. Galyba and A. I. Dobretsov.* **1984, No. 4, 1027 [211].**

Amplitude-Stable Quadrature Phase Shifter for Frequencies of 20 Hz to 200 kHz. *S. P. Novitskii, V. I. Kenzin, I. I. Burenkov, O. A. Yur'ev, and R. I. Burenkova.* **1985, No. 3, 652 [137].**

Wideband Phase Modulator. *D. L. Tamm and A. A. Shipitsyn.* **1986, No. 5, 1076 [87].**

Device for Discrete Phasing of Standard Radio-Frequency Pulse Trains. *V. F. Grigor'ev and V. V. Danilevich.* **1987, No. 1, 110 [103].**

Wideband Continuous Circular Phase Shifter. *N. S. Molchanov, V. F. Otchalko, and N. N. Shtarev.* **1988, No. 5, 1209 [103].**

Precision Compensating Phase Stabilizer. *A. E. Gudilin and S. V. Zhmak.* **1988, No. 6, 1475 [94].**

Phase Shifter with Linear Phase Control. *B. M. Kolokol'nikov and Yu. A. Kapustin.* **1990, No. 4, 862 [135].**

6.3.6. Frequency multipliers and dividers

Frequency Divider Using Integrated Operational Amplifiers. *P. A. Popov, R. N. Lependina, and V. I. Kosikov.* **1977, No. 3, 772 [145].**

Frequency Multiplier with a Variable Multiplication Factor. *A. Z. Venger, A. N. Ermak, and A. M. Yakimenko.* **1977, No. 4, 1125 [185].**

Astatic Frequency Multiplier with a Wide Pull-in Range. *A. P. Bondarev, V. N. Radchenko, and V. V. Abramov.* **1977, No. 5, 1386 [135].**

Frequency Multiplier with a Phase Synchronization Circuit. *R. M. Trakhtenberg, B. A. Staroverov, and V. P. Galas.* **1977, No. 5, 1389 [138].**

Digital Frequency Multiplier Based on a Counter Divider Type IKZ-15. *A. N. Zelenin, A. V. Il'chenko, P. D. Botsman, V. P. Shinkarenko, and A. D. Manyailo.* **1978, No. 1, 124 [124].**

Frequency Divider Using Dual-Gate Field-Effect Transistor. *V. V. Inozemtsev.* **1978, No. 2, 439 [162].**

Broadband Frequency Multiplier with Variable Multiplication Factor. *P. L. Gluzman and M. P. Morozov.* **1978, No. 4, 1006 [149].**

Simple Transistor Frequency Multiplier. *A. Z. Venger, A. N. Ermak, and A. M. Yakimenko.* **1979, No. 3, 768 [143].**

Method for Measurement and Calculation of Small Complex Impedances in the rf Range. *M. S. Kosilov, V. V. Sinitsyn, and V. T. Grechnev.* **1979, No. 4, 1079 [185].**

Frequency Multiplier with Double Conversion in an Additional Generator. *A. Z. Venger, V. I. Misevra, N. A. Sivozalizov, and A. M. Yakimenko.* **1980, No. 2, 442 [139].**

Frequency Dividers of Variable Division Factor. *V. V. Krochakevich.* **1981, No. 4, 944 [114].**

Frequency Divider with a Fractional Variable Division Coefficient. *E. P. Vetlugin and T. P. Yartsun.* **1981, No. 5, 1224 [119].**

Digital Frequency Divider with Integer Plus One Half Division Coefficient. *E. M. Khaikin and S. G. Martynov.* **1982, No. 2, 368 [83].**

Digital Programmable Frequency Converters. *G. A. Kozib.* **1982, No. 3, 600 [84].**

Programmable Frequency Divider. *L. V. Teslenko.* **1983, No. 2, 395 [142].**

CAMAC Programmable Frequency Divider. *V. I. Kopylov and A. M. Shilov.* **1983, No. 6, 1339 [82].**

Programmable Frequency Divider. *R. M. Rzhavina and B. A. Semanov.* **1984, No. 5, 1185 [127].**

Variable Scaler. *V. N. Maslii and A. A. Kulik.* **1985, No. 1, 135 [125].**

Decade Scaler with Fractional Variable Division Factor. *V. V. Valikov.* **1986, No. 1, 86 [81].**

RF Frequency Divider with Variable Division and Off-Duty Factors. *V. N. Teplukha.* **1987, No. 2, 380 [123].**

High-Speed Programmable Frequency Divider. *V. P. Potalui and B. A. Semanov.* **1987, No. 3, 593 [90].**

High-Factor Frequency Multiplier. *V. I. Misevra, I. Kh. Albegova, O. A. Aleksandrova, Yu. V. Zhilin, and L. G. Kovalenko.* **1987, No. 3, 595 [91].**

Wideband Frequency Multiplier. *S. N. Seliverov.* **1987, No. 5, 1120 [97].**

Dividers of Pulse Repetition Frequency with Fractional Division Factors. *L. A. Borisyuk and S. U. Klimovich.* **1988, No. 5, 1204 [99].**

Frequency Multiplier. *V. R. Lekhtman and L. F. Reznik.* **1989, No. 6, 1343 [99].**

Frequency Divider with Variable Division Factor. *M. I. Demchuk, V. P. Mikhailov, and G. A. Pribytok.* **1991, No. 1, 128 [130].**

Variable Frequency Divider. *E. N. Bantyukov.* **1991, No. 5, 1093 [104].**

7. RADIOENGINEERING DEVICES

Small-Sized Radio-Frequency Superconducting Tuned Circuit. *L. L. Anan'ev, E. P. Krasnoperov, A. M. Pozharov, and V. L. Rubinov.* **1977, No. 4, 1202 [257].**

Miniature Cold-Cathode Rectifying Diodes. *A. F. Kozhukhar' and V. A. Vasin.* **1978, No. 2, 542 [259].**

Transformer Discharging for High-Voltage Circuits. *V. S. Belkin.* **1979, No. 4, 1070 [178].**

Λ-Diode Q-Multiplier. *V. I. Baryshev and A. A. Kuznetsov.* **1979, No. 6, 1567 [83].**

Inductionless Carbon Graphite Shunt. *V. I. Bayunov and V. P. Belosheev.* **1980, No. 3, 798 [233].**

Coaxial Shunt. *S. A. Vinitskii, V. I. Kulakov, and Yu. A. Tverdov.* **1981, No. 1, 281 [264].**

Hyper-Q Single-Crystal Resonators. *A. G. Smagin.* **1981, No. 5, 1227 [122].**

High-Power Adder of High-Frequency Harmonic Signals with Low Nonlinear Distortion. *V. S Bogdanovskii, A. I. Voronov, I. I. Zaben'kov, and E. G. Popov.* **1982, No. 3, 654 [130].**

Frequency-Harmonic Multistable Storage Element (Spectrotron). *P. L. Gluzman.* **1982, No. 5, 1136 [88].**

A Wide-Band Resistance Transformer. *V. M. Nemirovskii and V. M. Sinyavskii.* **1985, No. 1, 133 [123].**

Tunable Ferrite-Core Induction Coils. *I. I. Averbukh and M. M. Karliner.* **1986, No. 3, 541 [33].**

New Semiconductor Device with Negative Differential Conductance. *S. G. Bantser, E. A. Gule, and A. I. Klimovskaya.* **1987, No. 1, 114 [107].**

Ultrawideband Module for Frequency Conversion and Modulation of Radio-Frequency Oscillations. *S. V. Melikhov, A. A. Titov, V. M. Faingerts, and G. N. Yakushevich.* **1991, No. 1, 115 [120].**

Lambda Devices with Synthesizable Volt–Ampere Characteristics. *A. P. Alekseev and A. E. Saimanin.* **1991, No. 5, 1081 [95].**

7.1. Generators

Generator of Ultralow-Frequency Signals. *A. N. Lapin, M. Z. Korytnyi, L. T. Sushkova, E. Ya. Marchenko, and A. G. Samoilov.* **1978, No. 1, 83 [81].**

Generator of Infrafrequency Random Process. *V. M. Glushan', I. M. Zarubin, and V. V. Svishchev.* **1978, No. 2, 407 [131].**

High-Voltage Generator for Controlling an Accelerator Beam. *V. A. Safonov and V. V. Glushikhin.* **1978, No. 2, 389 [114].**

Infralow-Frequency Sine-Wave Generator Using Discrete Components. *V. N. Salosin, É. I. Lezhnev, and Yu. V. Koshevoi.* **1979, No. 6, 1582 [97].**

Adjustable Timing Generator. *V. S. Zhigalov.* **1980, No. 6, 1417 [97].**

Shaper of a Random Signal with a Rayleigh Distribution Law. *A. V. Beshkarev and L. F. Karpenko.* **1981, No. 1, 98 [96].**

Controllable Staircase Voltage Generator Using Semiconductor Pentodes. *I. I. Obod.* **1981, No. 5, 1218 [114].**

Infralow-Frequency Generator. *A. V. Puzakov.* **1981, No. 5, 1221 [117].**

Stable Current Generator for Electron-Beam Deflection. *V. N. V'yukhin and E. A. Kovalev.* **1982, No. 1, 147 [130].**

Pseudorandom Signal Generator. *A. A. Bessonov and A. S. Markelov.* **1982, No. 3, 641 [120].**

Infralow Frequency Sine Wave Generator. *Ya. L. Burtov, A. P. Makeev, A. N. Skurskii, and V. T. Guchinskii.* **1982, No. 4, 925 [131].**

A Sweep-Current Generator. *I. B. Moskalenko and V. P. Regentov.* **1982, No. 5, 1145 [95].**

Pseudorandom Signal Generator. *A. M. Vodovozov and V. N. Labichev.* **1982, No. 6, 1390 [72].**

Simple Infralow Frequency Generator. *V. L. Zutkin and V. I. Kudelainen.* **1983, No. 3, 587 [88].**

Controllable RC Harmonic Generator. *V. P. Bodunov, K. S. Semenistyi, and V. K. Smetanin.* **1983, No. 6, 1373 [110].**

Microcomputer-Controlled High-Power Low-Frequency Random-Signal Generator. *B. M. Baishurin, V. A. Voznyi, Yu. P. Galishnikov, I. A. Galin, and B. S. Ospanov.* **1986, No. 1, 90 [85].**

Digital Signal Generator with Amplitude and Phase Modulation. *S. B. Makarov and A. M. Ulanov.* **1986, No. 2, 378 [103].**

High-Power Narrowband-Noise Generator. *Yu. F. Shirokov and A. I. Kolpakov.* **1986, No. 2, 399 [123].**

High-Power FET Generator. *A. A. Ageev.* **1987, No. 1, 127 [116].**

Self-Excited Audio-Frequency Noise Generator. *A. M. Namayunas and A. V. Tamashyavichyus.* **1988, No. 2, 372 [98].**

Thyristor Ultrasonic Generator. *I. S. Savchenko and A. V. Tolpegov.* **1988, No. 5, 1201 [97].**

Random-Signal Generator. *A. M. Kovalev, V. V. Kruglov, V. A. Zubov, and A. T. Prokhorenkova.* **1989, No. 3, 617 [113].**

Sine-Wave Generator for ac Measurement of Low-Frequency Noise. *S. M. Bezrukov and V. P. Khavronin.* **1989, No. 6, 1335 [92].**

Multiphase Quasiharmonic and Relaxation Oscillators. *S. E. Dvorchik and B. M. Fel'dman.* **1991, No. 1, 138 [139].**

7.1.1. Function generators

Infralow-Frequency Triangular Waveform Voltage Generator. *Yu. S. Artamonov.* **1977, No. 3, 735 [112].**

Sawtooth Voltage Generator with Symmetric Output Relative to the Zero Level. *V. M. Katsman.* **1977, No. 4, 1087 [150].**

Stepped Sawtooth Waveform Generator Using Microcircuits. *L. F. Berzin and A. L. Yakimakha.* **1977, No. 4, 1089 [152].**

Generator of Hyperbolic Time Function with Pulse-Duration Output. *A. I. Ovcharenko.* **1978, No. 4, 995 [140].**

Synthesizer of Broadband Signals of Complicated Waveform. *E. L. Podol'nyi and V. E. Yamnyi.* **1978, No. 4, 997 [142].**

Digital Sweep Generator with Nonlinearity Correction. *I. I. Zadubovskii.* **1978, No. 5, 1311 [139].**

Simple Shaper for a Series of Fast Scans. *G. I. Aponin and A. A. Besshaposhnikov.* **1978, No. 5, 1313 [142].**

Functional Generator of the Controlling Voltage of a Linear Accelerator Energy Modulator. *Yu. D. Beznogikh, M. A. Voevodin, and Sh. Z. Saifulin.* **1979, No. 2, 330 [40].**

Broad-Band Sawtooth Voltage Generator. *A. A. Belyi and N. N. Skrigan.* **1979, No. 3, 742 [118].**

Slow Sweep Generator. *V. G. Shironosov.* **1979, No. 5, 1351 [151].**

Waveform Synthesis at Infralow Frequencies with an Analog Signal Converter. *V. I. Voronin.* **1980, No. 1, 112 [114].**

A Simple Generator of a Linearly Varying Voltage. *A. A. Zagrubskii, V. A. Lobtsyus, and V. V. Petrov.* **1980, No. 1, 127 [128].**

Low-Frequency Triangular-Current Generator. *L. A. Bulygin and N. F. Gusarova.* **1980, No. 5, 1187 [121].**

High-Frequency Sawtooth Generator. *V. A. Chulkov.* **1980, No. 6, 1415 [96].**

A High-Speed Scanning Generator Based on Avalanche and Power MIS Transistors. *V. P. D'yakonov.* **1981, No. 2, 433 [136].**

A Digital Harmonic Generator. *N. V. Maslov, V. M. Pochter, and V. P. Prikhnenko.* **1981, No. 4, 972 [140].**

Voltage Generator for Investigating Metal-Dielectric-Semiconductor Structures. *O. A. Orlov.* **1982, No. 2, 383 [96].**

High-Voltage Ramp Generator. *V. A. Bondar'.* **1982, No. 2, 385 [98].**

Digital Function Generator. *A. M. Borodin and B. N. Kazakov.* **1982, No. 4, 923 [129].**

Universal Function Generator. *S. G. Basiladze and Kao Dak Hien.* **1983, No. 1, 74 [72].**

Wideband Generator of Amplitude-Stabilized Sawtooth Voltage. *A. E. Gudilin.* **1983, No. 2, 362 [113].**

Precision Linear Generator for the Study of Metal-Dielectric-Semiconductor Structures. *O. A. Orlov.* **1983, No. 5, 1121 [111].**

High-Speed, Linear-Voltage Generator. *A. V. Prasolov and E. A. Fomin.* **1983, No. 6, 1371 [109].**

Wide-Range Digital Sawtooth Generator. *A. G. Nassonov.* **1984, No. 1, 145 [131].**

Programmable Walsh-Function Generator. *Yu. V. Petelin.* **1984, No. 4, 901 [105].**

Infralow Frequency Band Functional Signal Generator. *S. A. Belyakov and P. P. Churakov.* **1985, No. 2, 417 [142].**

Programmable Function Generator for Studying Nonlinear Two-Terminal Networks. *L. I. Ukhanov.* **1985, No. 3, 641 [128].**

Digital Sine-Wave Generator. *V. M. Sapel'nikov, V. V. Tarasov, A. M. Muftakhov, and A. D. Maksutov.* **1985, No. 5, 1089 [93].**

Generator of Linear Voltage of Asymmetrical Shape. *A. Yu. Vinogradov and E. B. Ivkin.* **1985, No. 6, 1347 [103].**

Digital Reference Generator for Nuclear Gamma-Resonance Spectrometer Based on NTA-1024 Multichannel Analyzer. *S. A. Yur'ev, S. I. Yushchuk, and G. E. Khomyak.* **1986, No. 1, 112 [104].**

Programmable Function Generator for Mössbauer Spectrometer. *G. N. Belozerskii, V. G. Semenov, A. A. Sergienko, and A. Yu. Sokolov.* **1986, No. 5, 1058 [69].**

Triangular Signal Generator with Digital Control. *E. P. Bochkar'.* **1986, No. 5, 1103 [110].**

Analog-Digital Generator of Periodic Signals of Arbitrary Shape. *A. A. Golovanov, Yu. V. Zykov, and V. K. Kosolapov.* **1986, No. 5, 1101 [109].**

Function Generator for Controlling the Magnet Power Supplies of a Superconducting Spin Synchrotron. *A. N. Parfenov and A. V. Pilyar.* **1986, No. 6, 1317 [74].**

Programmable Arbitrary-Waveform Generator. *V. A. Kantserov, A. S. Pershin, V. V. Rodionov, and V. K. Chernyatin.* **1987, No. 3, 597 [93].**

Function Generator with Digital Control. *V. I. Zametin and M. Yu. Kolosyanko.* **1988, No. 1, 142 [123].**

Arbitrary Periodic Waveform Generator that is Programmed by a D3-28 Microcomputer. *N. G. Ageev, V. G. Glazachev, and E. I. Eliseev.* **1989, No. 1, 162 [143].**

Precision Reference-Signal Generator for Mössbauer Spectrometer. *K. E. Nilov, M. V. Abramov, and N. S. Kolpakov.* **1989, No. 2, 383 [114].**

Linear Generator for C-V Meters. *V. Yu. Petrov and V. V. Popov.* **1990, No. 1, 111 [117].**

Sawtooth Sweep Generator with Digital Control. *V. I. Shamis, I. S. Serbin, I. A. Tomilko, and G. B. Tregubov.* **1990, No. 4, 831 [110].**

Digital Low-Frequency Signal Generator. *O. G. Volodin and N. S. Perov.* **1991, No. 4, 852 [108].**

7.1.2. Stabilized generators

Phase Automatic Frequency Trimming Circuit. *V. B. Volkonskii and V. V. Yakovlev.* **1977, No. 1, 180 [159].**

Very Stable Crystal Oscillators Aging Less than 10^{-10} per Month. *A. G. Smagin.* **1977, No. 1, 188 [166].**

Quartz-Crystal Stabilized 150-MHz Oscillator. *E. Vinkler, V. M. Grebenyuk, and V. G. Zinov.* **1977, No. 3, 736 [113].**

High-Power Crystal Oscillator. *E. P. Kavun.* **1978, No. 3, 685 [128].**

High-Speed Two-Channel Generator of a Grid of Quartz-Controlled Frequencies. *V. N. V'yukhin, B. V. Vanyushev, and A. I. Chernyshov.* **1978, No. 4, 1001 [145].**

Differential Quartz Oscillator with a Wide Relative Tuning Range. *V. Ya. Bezlyud'ko, A. A. Zelenskii, and V. F. Solodovnik.* **1978, No. 4, 1004 [147].**

Electric-Oscillation Generator Stabilized by a Mechanical Sapphire Resonator at a Temperature 4.2°K. *A. D. Kochubei and V. D. Mitrofanov.* **1978, No. 5, 1316 [144].**

Crystal Oscillator without Inductance Excited at the Mechanical Harmonics of the Resonator. *A. L. Borisenko and O. T. Sokolov.* **1979, No. 3, 743 [119].**

Pulsed Phase-Locked Automatic Frequency-Control System Based on Microcircuits. *V. P. Vasil'ev.* **1979, No. 5, 1343 [144].**

Low-Frequency Quartz Oscillator Designed from Microcircuits. *V. S. Korolev and E. N. Matin.* **1979, No. 5, 1349 [150].**

Self-Excited Oscillator for Examining a Multimode Piezoelectric Resonator. *Yu. F. Orekhov and A. A. Borovik-Romanov.* **1979, No. 5, 1453 [239].**

Pulse Phase Detector for Frequency Synthesizers. *M. I. Drugov, V. L. Karyakin, M. Yu. Solov'ev, and N. N. Stepanov.* **1980, No. 4, 930 [118].**

Precision Generator for Harmonic Oscillations. *I. M. Fedorov.* **1982, No. 2, 376 [90].**

Two-State System of Automatic Phase-Lock Frequency Control. *Yu. P. Grishin, K. P. Kuznetsov, K. L. Chiritso, and S. S. Saskakov.* **1982, No. 4, 941 [146].**

Crystal Oscillator Using Series K500 Integrated Circuits. *V. V. Butskii, E. E. Konoplin, and N. V. Naumov.* **1984, No. 4, 897 [102].**

Controller for Ch6-31 Frequency Synthesizer. *R. F. Tuktarov and T. Kh. Yumaguzin.* **1986, No. 2, 389 [114].**

Precision Initial-Frequency Generator for RF Accelerating-Voltage Shaper of Booster of Institute of High-Energy Physics. *V. L. Bruk, V. K. Vorob'ev, and V. G. Tishin.* **1986, No. 5, 1002 [19].**

Stable Radio-Frequency Oscillators Implemented by High-Speed Logic Elements with Surface-Acoustic-Wave Resonators. *V. M. Koleshko, Yu. V. Meshkov, and E. I. Lozovskii.* **1988, No. 3, 656 [119].**

Device for Production of Constant Difference Between Frequencies of Two RF Generators. *A. Virro.* **1988, No. 3, 686 [142].**

CAMAC-Compatible Programmable Frequency Synthesizer. *T. Kh. Yumaguzin, D. E. Vyazovkin, E. R. Nazirov, and R. F. Tuktarov.* **1989, No. 4, 848 [103].**

Precision Crystal Oscillator. *A. L. Borizenko, D. Yu. Zaitsev, and O. T. Sokolov.* **1990, No. 3, 571 [89].**

Generator of Linearly Frequency-Modulated Signals with Automatic Parameter Adjustment. *V. A. Firago, V. L. Kozlov, K. N. Korostik, and E. D. Karikh.* **1990, No. 3, 574 [91].**

7.2. Amplifiers

Photoelectric Amplifier for Wide Range of Pulsed Signals. *G. A. Aver'yanov, B. M. Savichev, Yu. V. Pleshanov, V. S. Proshina, and S. L. Chigaleichik.* **1977, No. 1, 152 [136].**

Phase-Stable Amplifier-Limiter. *A. M. Fishtein.* **1977, No. 4, 1074 [139].**

Amplifier with Time-Dependence Gain. *S. Li and R. G. Faizullin.* **1977, No. 4, 1076 [141].**

Economical Low-Frequency Amplifying Arrangements. *Ya. T. Zagorskii and A. A. Kuznetsov.* **1977, No. 4, 1079 [143].**

Amplifier with Controlled Amplification Coefficient. *Yu. I. Belonosov and V. E. Yamnyi.* **1977, No. 5, 1377 [127].**

dc Amplifier-Comparator with Galvanic Decoupling of Inputs and Output. *N. M. Zolotova.* **1977, No. 5, 1379 [129].**

Amplifier Stages with Controllable Gain. *O. I. Andronov, V. G. Brovchenko, and M. M. Tsygankov.* **1978, No. 2, 434 [157].**

Inverting Devices. *A. M. Kovalev and Yu. I. Puchkov.* **1978, No. 5, 1337 [165].**

Broadband Current Amplifier for Inductive Loads. *M. G. Tokhmakhyan.* **1978, No. 5, 1320 [149].**

Integrated-Circuit Amplifier–Limiter of a Broadband Phase Meter. *R. N. Sibgatulin, N. P. Sukhostavtsev, and M. K. Chmykh.* **1978, No. 6, 1560 [96].**

Amplifier with Automatic Gain Control. *V. A. Larionov.* **1979, No. 3, 755 [130].**

Normalizing Amplifier. *A. A. Galitskas.* **1979, No. 3, 757 [132].**

All-Purpose Measuring Amplifier. *S. I. Kutsarov and D. I. Mikhailova.* **1979, No. 4, 1030 [144].**

Phase-Stable Amplifier with Automatic Regulation of the Amplifier. *A. M. Fishtein.* **1979, No. 4, 1040 [153].**

High-Speed Differential Amplifier Using Discrete Components. *A. I. Antonevich, V. V. Butskii, and S. S. Vetokhin.* **1979, No. 4, 1044 [157].**

Temperature-Compensated Logarithmic Amplifier. *A. E. Érglis and U. V. Yanson.* **1980, No. 1, 136 [137].**

Amplifier with Automatic Gain Selection. *G. Sh. Bikmurzin.* **1980, No. 5, 1176 [114].**

Instrumentation Amplifier. *A. I. Antonevich, V. V. Butskii, S. S. Vetokhin, and A. M. Sarzhevskii.* **1981, No. 2, 444 [147].**

Phase-Stable Amplifier with Programmable Gain. *P. A. Lapshin and V. V. Maslennikov.* **1982, No. 4, 931 [137].**

Amplifier with Galvanic Transformer Decoupling. *V. K. Isaikin and V. N. Cherepanov.* **1982, No. 6, 1406 [85].**

Compensation of the Additive Components of a Signal at the Input to Measurement Amplifiers. *Yu. A. Alabuzhev and V. A. Gain.* **1982, No. 6, 1409 [87].**

Fast-Acting Transistor Amplifier. *V. N. Legkii and L. E. Kachev.* **1983, No. 2, 373 [122].**

Low-Voltage Integrating Amplifier for Photometric Equipment. *A. V. Churbakov.* **1983, No. 2, 377 [126].**

Digitally Controlled Amplifier. *S. I. Kutsarov.* **1983, No. 5, 1140 [128].**

Normalizing Amplifier. *A. V. Alekseev and V. K. Khokhlov.* **1984, No. 3, 662 [130].**

Logarithmic Radio Pulse Amplifier. *V. F. Taborov and V. F. Tarasov.* **1984, No. 5, 1178 [121].**

Sixteen Channel Amplifier with Automatic Input Circuit Testing. *V. G. Brovchenko, V. A. Luzin, and V. V. Shafirkin.* **1985, No. 2, 423 [148].**

Amplifier for Photodetector with Digital Sensitivity Control. *E. P. Bochkar', A. I. Zakharov, S. N. Polyakov, and V. A. Samorodov.* **1986, No. 2, 450 [170].**

Isolation Amplifier. *Yu. N. Klikushin.* **1986, No. 3, 644 [126].**

Multichannel Amplifier. *E. M. Yarichin and N. A. Shurygin.* **1986, No. 5, 1118 [123].**

Amplifier-Normalizer for Semiconductor Commutator. *V. G. Brovchenko, A. V. Sergeev, and V. V. Shafirkin.* **1987, No. 4, 886 [120].**

Precision Transformer-Coupled Amplifier-Converters. *O. E. Averchenkov and K. I. Sviridenkov.* **1987, No. 6, 1407 [119].**

High-Speed Amplifier with Automatic Gain Control using Wideband Operational Amplifiers. *T. Kh. Zaripov and A. I. Zarukin.* **1988, No. 3, 660 [122].**

Differential Isolation Amplifier. *Yu. N. Klikushin.* **1989, No. 2, 478 [197].**

Measuring Amplifier with Programmable Gain. *O. S. Andreev, O. P. Andrukh, and B. A. Bokhonko.* **1989, No. 3, 626 [122].**

Current Amplifier for Inductive Load. *M. T. Tikhostup, V. S. Chernyshov, and E. I. Kovrigin.* **1989, No. 5, 1161 [168].**

7.2.1. Low-noise amplifiers and followers

Artificially Cooled Field Effect Transistor Amplifier with 1°K Noise Temperature. *L. L. Anan'ev, A. M. Pozharov, and N. V. Egorov.* **1977, No. 3, 760 [135].**

Low-Frequency Modulation Amplifier. *B. M. Shinkevich, V. T. Pokhabov, and A. I. Mordasov.* **1977, No. 3, 766 [139].**

Wide-Band Low Noise Amplifier with High Dynamic Range. *N. M. Panin, A. N. Mitrokhin, and N. S. Lozovaya.* **1978, No. 1, 92 [90].**

Low-Noise Preamplifier with a Low-Temperature uhf n-InSb-Based Detector. *N. N. Kabdin, V. N. Krymov, A. M. Neboshchik, L. G. Oranskii, and V. N. Saraev.* **1979, No. 3, 752 [128].**

Source Follower with Transistor Gate Protection Circuit. *A. N. Mashlykin.* **1979, No. 6, 1578 [93].**

Low-Noise Temperature-Stable Preamplifier. *V. P. Korotkov, M. V. Sosnenko, and N. A. Khrebtov.* **1979, No. 6, 1580 [95].**

Low-Noise Selective Amplifier. *L. I. Volgin, D. G. Levchenko, A. I. Zarukin, A. I. Bagimov, and A. A. Vyazovkin.* **1980, No. 1, 133 [134].**

Stable High-Input–Impedance Voltage Follower. *L. I. Volgin and A. I. Zarukin.* **1981, No. 4, 956 [126].**

Low-Noise Thermostable dc Amplifier. *V. I. Goncharov, B. N. Kazak, Y. F. Ruban, and N. N. Rusakov.* **1981, No. 5, 1232 [126].**

Cooled Preamplifier. *V. P. Kuz'kov and V. N. Nedashkovskii.* **1982, No. 2, 497 [196].**

Wideband Follower with 40-kV Optoelectronic Isolation. *V. S. Belkin.* **1982, No. 4, 901 [111].**

Low-Noise Low-Frequency Preamplifier. *I. A. Buchkovskii, M. S. Andrushchak, and I. M. Rarenko.* **1982, No. 5, 1153 [102].**

Low-Noise Preamplifiers Using Bipolar Transistors. *G. E. Leont'ev and V. P. Armonavichyus.* **1983, No. 2, 374 [123].**

Breakdown Protection for Input FET'S in Charge-Sensitive Preamplifiers. *K. E. Nilov and N. S. Kolpakov.* **1983, No. 2, 379 [127].**

Low-Noise Amplifier. *A. M. Borodin and B. M. Kazakov.* **1983, No. 6, 1365 [103].**

Low-Noise Preamplifier. *G. E. Leont'ev, V. P. Armonavichyus, and G. S. Mikolaitis.* **1984, No. 1, 139 [126].**

Low-Noise Preamplifier for Low Impedance Signal Sources. *A. S. Petrov and E. A. Potylitsyn.* **1984, No. 3, 665 [133].**

Low-Noise Amplifier for Small DC Voltages. *G. A. Khononzon, Ya. I. Magun, and N. A. Aniskina.* **1984, No. 4, 912 [114].**

Low-Noise Amplifiers for the 50-1000 MHz Range. *A. M. Korolev.* **1984, No. 6, 1427 [117].**

High-Voltage Electrometer Follower. *E. V. Kuchis and M. A. Pyatkunas.* **1986, No. 1, 148 [129].**

High-Speed Precision Voltage Follower. *A. A. Danilov.* **1987, No. 1, 92 [87].**

Wideband Low-Noise Intermediate-Frequency Amplifier for Radiometric Receivers. *Yu. A. Nemlikher, A. F. Rukavitsyn, and I. A. Strukov.* **1987, No. 1, 129 [118].**

Tracking Power Supply to Increase Follower Speed. *O. I. Andronov, V. G. Brovchenko, and I. Yu. Rodionov.* **1987, No. 5, 1123 [99].**

Low-Noise Low-Frequency Amplifier. *G. A. Ovsyannikov and S. V. Proklov.* **1988, No. 3, 667 [127].**

Low-Noise Amplifier for High-Impedance Signal Source. *A. L. Dzardanov and S. V. Malikov.* **1988, No. 6, 1492 [108].**

Use of KP303A Field-Effect Transistor in Low-Noise Low-Frequency Preamplifiers. *G. E. Leont'ev and V. P. Armonavichyus.* **1988, No. 6, 1494 [110].**

High-Speed Buffer Voltage Follower. *V. L. Pravdin.* **1989, No. 2, 409 [137].**

Low-Noise Measuring Amplifier with Synchronous Detector for Photodetector. *K. N. Visheratin and N. D. Tret'yakov.* **1989, No. 4, 893 [142].**

Precision Wideband Voltage Follower with High Input Impedance. *V. I. Kenzin.* **1990, No. 1, 140 [139].**

Noise Characteristics of Unpackaged Bipolar Transistors. *R. N. Krasnokutskii, L. L. Kurchaninov, V. V. Tikhonov, N. N. Fedyakin, and R. S. Shuvalov.* **1990, No. 3, 633 [140].**

High-Speed Voltage Follower. *I. I. Medvedev.* **1991, No. 1, 134 [135].**

Study of Spectral Density of Series Noise of Field-Effect Transistors. *I. N. Gavrilova and V. V. Gostilo.* **1991, No. 2, 344 [106].**

7.2.2. Direct-current amplifiers

Differential Two-Channel Operational Amplifier. *S. L. Sud'in and V. T. Timofeev.* **1977, No. 1, 165 [146].**

A DC Amplifier Based on a Threshold Device with Feedback. *V. A. Klynin.* **1977, No. 2, 459 [119].**

Differential Operational Amplifier with Improved Response Time. *N. N. Prokopenko.* **1978, No. 2, 429 [153].**

Relay Operational Amplifier. *L. I. Tsytovich, B. A. Petrenko, and V. G. Maurer.* **1978, No. 2, 431 [154].**

Wideband dc Amplifier. *O. G. Rezvanov and V. M. Nemirovskii.* **1978, No. 2, 437 [160].**

Composite Operational Amplifier and Analog Memory Based on It. *G. N. Sofiev, A. A. Mitin, G. A. Aref'eva, A. M. Gromov, and Yu. Yu. Palkin.* **1979, No. 4, 1033 [146].**

Scanning Operational Amplifier with Tunable Passband. *L. I. Tsytovich.* **1979, No. 4, 1036 [149].**

Operational Sweep Amplifier with Periodic Stabilization of Zero Level. *L. I. Tsytovich and B. A. Petrenko.* **1980, No. 1, 131 [132].**

Wideband dc Amplifier. *A. S. Nagaikin and A. A. Anisimov.* **1980, No. 2, 428 [127].**

Composite Operational Amplifier. *V. V. Ivanov and V. V. Marchenko.* **1980, No. 4, 932 [120].**

Logarithmic Current and Voltage Amplifier Based on an F116 dc Meter. *A. B. Ormont.* **1980, No. 4, 938 [125].**

Improving the Speed of the K140UD1 Operational Amplifier. *G. P. Petin, V. N. Rudkovskii, A. V. Makienko, S. V. Khristich, and S. Ya. Ivantsov.* **1980, No. 5, 1174 [113].**

Wide-Band Constant-Current Amplifier. *Dzh. K. Parsamyan and M. G. Tokhmakhyan.* **1981, No. 4, 954 [124].**

Operational Amplifier with Extended Range of Input Voltages and Small Input Currents. *V. Yu. Romanov and F. I. Panachev.* **1982, No. 1, 149 [132].**

Instrumentation Amplifier dc Integrators with Galvanic Input Decoupling. *O. Sh. Pkhakadze.* **1982, No. 1, 154 [135].**

Differential Amplifier with Automatic Null Drift Correction. *G. Sh. Bikmurzin and S. V. Shukov.* **1982, No. 2, 399 [111].**

Digital-Analog dc Amplifier of the Self-Compensating Type. *Ya. N. Aleksevich and M. M. Mel'nik.* **1982, No. 6, 1404 [83].**

Wideband DC Amplifier with Programmable Gain. *S. V. Lakhotanov, V. T. Shnitko, and A. I. Yareshchenko.* **1983, No. 6, 1363 [101].**

Differential Amplifier with Improved Common Mode Rejection at High Frequency. *Va. V. Zablotskin and V. F. Zavorotnyi.* **1985, No. 2, 422 [147].**

High-Speed dc Amplifier with Digitally Programmable Gain. *N. V. Dmitriev.* **1985, No. 4, 860 [117].**

Operational Amplifiers with Increased Output Voltage. *V. Yu. Romanov, V. N. Baryshnikov, P. V. Vnukov, and F. I. Panachev.* **1985, No. 6, 1345 [101].**

Precision Differential Operational Amplifier. *A. A. Danilov.* **1986, No. 1, 150 [130].**

Scanning Operational Amplifier with Automatic Data-Channel Allocation. *L. I. Tsytovich, V. A. Kozhevnikov, and A. V. Sokolov.* **1986, No. 3, 638 [119].**

Wideband Amplifier using General-Purpose Operational-Amplifier Integrated Circuits. *K. I. Zapodovnikov.* **1986, No. 5, 1108 [115].**

DC Differential Amplifier with Periodic Zero Adjustment. *V. V. Meer, V. I. Nesterov, and V. A. Yakovlev.* **1987, No. 6, 1409 [121].**

High-Quality DC Amplifier. *G. I. Mirskii and V. A. Utkin.* **1990, No. 1, 133 [134].**

High-Speed Fast-Settling Operational Amplifier. *V. V. Savosin.* **1990, No. 1, 136 [136].**

7.2.3. Electrometer amplifiers and electrometers

Electrometer Amplifier with Automatic Range Switching. *V. G. Kozlov, K. I. Guseva, N. I. Mikheeva, and V. A. Notkin.* **1977, No. 1, 168 [149].**

Electrometric Voltage Amplifier. *P.-Yu. P. Zhilinskas and T. L. Lazovskii.* **1977, No. 3, 759 [134].**

Electrometer Amplifier. *A. A. Antonovskii and V. N. Blinov.* **1977, No. 4, 1071 [137].**

Self-Oscillator Electrometric Amplifier with MIS Varicaps. *V. V. Medvedev, A. K. Osipov, and S. A. Shobotenko.* **1978, No. 3, 708 [146].**

Electrometric Amplifier with Direct Coupling Based on p–n Junction Transistors. *A. E. Zelenin.* **1980, No. 3, 682 [129].**

Electrometer Amplifier of the Modulator-Demodulator Type. *A. E. Zelinin.* **1981, No. 1, 142 [136].**

High-Stability Low-Noise Electrometer Preamplifier. *A. S. Nagaikin and V. P. Masyagin.* **1981, No. 2, 445 [148].**

High-Speed Electrometer. *M. Kh. Anso.* **1981, No. 5, 1233 [128].**

Measuring Amplitude-Frequency Response of Electrometers. *N. N. Aruev, E. L. Baidakov, V. A. Zagulin, and A. V. Yakovlev.* **1984, No. 2, 383 [120].**

High-Speed Electrometer. *S. K. Kuroedov.* **1987, No. 2, 386 [129].**

Electrometric Amplifier Based on p-n Junction Field-Effect Transistors. *A. G. Kuksov.* **1987, No. 3, 644 [132].**

Electrometer Amplifier. *L. L. Kurchaninov, V. V. Sushkov, and R. S. Shuvalov.* **1990, No. 1, 138 [138].**

Temperature-Stable Electrometer Using K544UD1A Operational Amplifier. *V. I. Antonenko.* **1990, No. 6, 1351 [115].**

7.2.4. Wideband and pulse amplifiers

Broadband Logarithmic Amplifier. *V. P. Golovkov, A. I. Golyshev, Yu. V. Zubritskii, and S. S. Shikhmanov.* **1977, No. 1, 162 [144].**

High Stability Wide-Band Amplifier. *Yu. N. Mishin, L. F. Ryabkov, and V. N. Serov.* **1977, No. 3, 752 [128].**

Wideband Amplifiers with Diode Interstage Coupling. *A. S. Nagaikin.* **1977, No. 3, 754 [129].**

Wide-Band High-Gain Amplifier. *A. I. Dobretsov, V. A. Karzhavin, and Yu. A. Tuflin.* **1978, No. 1, 89 [88].**

Pulse Amplifier with Digital Gain Control. *V. F. Borzhkovskii, V. G. Vlasov, V. G. Batii, N. G. Stervoedov, and A. I. Frolov.* **1978, No. 2, 427 [150].**

Transistorized Cascade Pulse Amplifier. *A. Ya. Sinitsyn and R M. Gabitov.* **1978, No. 4, 993 [139].**

Broadband Amplifier with Passband Exceeding 300 MHz. *Yu. A. Volkov, I. I. Il'yushenko, V. A. Korolev, and V. M. Paskhin.* **1979, No. 1, 133 [127].**

Pulse Amplifier with Digital Gain Control. *V. F. Borzhkovskii.* **1979, No. 3, 749 [125].**

High-Speed Transistor Amplifier. *N. I. Turovskii and M. G. Livshits.* **1980, No. 2, 420 [119].**

Transistor Videoamplifier of Nanosecond Pulses with Increased Output Voltage. *B. I. Avdochenko, L. I. Babak, and V. D. Obikhvostov.* **1980, No. 5, 1169 [107].**

MOS Transistor Linear Pulsed Amplifiers with Distributed Gain. *A. I. Sklyarenko.* **1980, No. 5, 1170 [109].**

Wideband Differential Amplifier. *G. Sh. Bikmurzin.* **1980, No. 6, 1402 [83].**

Transistor Amplifier with Bandwidth of 0.1-450 MHz. *M. V. Ten.* **1980, No. 6, 1404 [85].**

Pulse Amplifier for Multichannel Systems. *D. F. Zaitsev, G. F. Zverev, V. S. Laevskii, and Ya. L. Khlyavich.* **1981, No. 2, 443 [146].**

Broadband Current Amplifier. *V. I. Antonov and S. I. Kholondyrev.* **1982, No. 1, 151 [133].**

Wide-Band Photomultiplier Current Amplifier. *V. M. Zalkind, I. S. Sushko, and V. P. Tarasenko.* **1982, No. 2, 398 [110].**

Broadband Amplifier with Maximum Frequency 700 MHz. *F. C. Abramov, Yu. A. Volkov, and V. M. Paskhin.* **1982, No. 3, 652 [129].**

Current Pulse Amplifier. *V. S. Zaionchkovskii and B. G. Borisov.* **1982, No. 4, 922 [128].**

Pulse Threshold Amplifier. *V. L. Pravdin.* **1982, No. 5, 1151 [100].**

Direct Coupled Subnanosecand Amplifier. *E. V. Brakhman and A. I. Mitin.* **1983, No. 4, 894 [138].**

Multiple-Octave Super-High-Frequency Transistor Amplifiers with Electronic Gain Control. *N. F. Grashchenkov, V. N. Il'yushenko, I. A. Kolesov, V. A. Kologrivov, L. E. Rubtsova, E. N. Rodionov, G. I. Sudeiko, A. S. Torgashev, and G. N. Yakushevich.* **1983, No. 5, 1142 [130].**

Wideband Amplifier with Variable Gain. *V. M. Kuznetsov, R. Z. Besedovskii, K. N. Pripisnov, and M. A. Sungurovskii.* **1983, No. 6, 1360 [99].**

Wideband Amplifier with High Dynamic Range. *N. V. Lementueva, S. V. Luchkin, M. G. Malkin, and P. M. Povidaiko.* **1983, No. 6, 1357 [97].**

Matched Broadband Amplifier. *F. G. Abramov, Yu. A. Volkov, N. N. Vonsovskii, I. I. Il'yushchenko, O. V. Mashinin, and V. M. Paskhin.* **1984, No. 2, 372 [111].**

Precision Wideband High-Frequency Logarithmic Amplifier. *A. A. Sharin and A. A. Vesnukhov.* **1984, No. 3, 660 [129].**

Broadband Amplifier Having a Short Recovery Time after an Overload. *K. N. Stroev, N. N. Stroev, and V. V. Strautzelis.* **1984, No. 5, 1180 [122].**

Pulse Amplifier Implemented by GaAs Field-Effect Power Transistors with Subnanosecond Settling Time. *V. P. D'yakonov, P. G. Adamov, and A. E. Shlyakhtin.* **1985, No. 5, 1110 [112].**

Differential Amplifier with 100-MHz Bandwidth. *A. I. Ivanov.* **1985, No. 5, 1118 [117].**

Wideband Amplifier with Past Automatic Gain Control. *V. A. Firago, V. L. Kozlov, and A. F. Shilov.* **1986, No. 2, 393 [116].**

Pulse Amplifier with Digital Gain Control. *V. V. Eliseeva, G. Y. Il'inskii, O. L. Kuznetsov, and P. V. Denisyuk.* **1986, No. 2, 398 [122].**

Wideband Amplifier. *V. A. Egorov.* **1986, No. 5, 1111 [117].**

Picosecond Amplifier Modules using Schottky-Barrier Transistors. *B. I. Avdochenko, V. N. Il'yushenko, and L. P. Donskikh.* **1986, No. 5, 1113 [119].**

Nanosecond Amplifier-Limiter. *Yu. N. Chernetskii and S. A. Chernyi.* **1986, No. 5, 1116 [122].**

High-Speed Paraphase Pulse Amplifier. *N. L. Vinogradov and F. V. Samoilov.* **1987, No. 2, 382 [125].**

Picosecond Amplifier Modules with Increased Output Voltage. *B. I. Avdochenko and V. N. Il'yushenko.* **1987, No. 2, 383 [126].**

GaAs-FET Pulse Amplifier with Subnanosecond Settling Time. *A. N. Sidnev.* **1987, No. 6, 1405 [118].**

Amplifier-Shaper of Pulses with Repetition Frequency to 3 GHz. *V. N. Il'yushenko and B. I. Avdochenko.* **1988, No. 2, 354 [83].**

Amplifier with Transient Recovery Time of 40 psec. *B. I. Avdochenko and V. N. Il'yushenko.* **1988, No. 4, 955 [112].**

Logarithmic Pulse Amplifier. *I. S. Liryukhin, A. G. Varenik, and A. A. Zhurin.* **1988, No. 5, 1215 [108].**

Wideband Amplifier-Limiter with Electronic Gain and Bias Control. *S. G. Basiladze, Yu. D. Shchukin, and A. G. Nikolaev.* **1989, No. 1, 170 [151].**

Transistor Subnanosecond-Pulse Amplifier with Increased Output Voltage. *B. I. Avdochenko, L. I. Babak, and V. D. Obikhvostov.* **1989, No. 3, 630 [126].**

Medium-Power Wideband Amplifier with Variable Gain. *S. V. Melikhov and A. A. Titov.* **1989, No. 5, 1159 [166].**

Ultrawideband Amplifier with Distributed Gain using Schottky-Barrier Field-Effect Transistors. *V. M. Korotaev, A. A. Kuzmin, V. N. Vavilin, A. R. Nevolin, V. Ya. Gyunter, and S. V. Korsakov.* **1990, No. 3, 611 [122].**

Hybrid Pulse Amplifiers. *B. I. Avdochenko and V. N. Il'yushenko.* **1990, No. 6, 1335 [102].**

Logarithmic Microwave Amplifier for Photomultipliers. *Yu. S. Denishchik.* **1990, No. 6, 1343 [108].**

Remote 20-dB Gain Control for Microwave Amplifier. *Yu. S. Denishchik.* **1990, No. 6, 1346 [111].**

Ultrawideband Linear Power Amplifiers. *D. D. Alekseevskii, V. M. Makogon, S. V. Melikhov, A. A. Titov, and V. V. Feklin.* **1991, No. 2, 347 [109].**

7.2.5. High-Power and high-voltage amplifiers

Switching Wide-Band Power Amplifier Based on Transistors. *P. A. Popov and M. D. Sverdlov.* **1977, No. 2, 456 [117].**

Tuned Power Amplifier for the Supply of the Accelerating Resonator of an Ion Synchrotron. *I. I. Averbukh and M. M. Karliner.* **1978, No. 3, 577 [25].**

Power Amplifier with Pulse-Width Modulation. *E. I. Zagorodnikov and A. S. Medvedko.* **1978, No. 6, 1558 [94].**

High-Voltage Transistor Amplifier of Unipolar Pulses. *A. A. Titov and L. G. Boltovskaya.* **1979, No. 2, 439 [140].**

Wideband Amplifier Modules Using KT934B, V Transistors. *B. I. Ivlev.* **1979, No. 6, 1576 [91].**

Power MOS FET Amplifier with Subnanosecond Response Time. *V. P. D'yakonov and V. Yu. Smerdov.* **1980, No. 3, 679 [127].**

Wide-Band Pulse Power Amplifiers Based on MIS Transistors. *V. P. D'yakonov.* **1980, No. 4, 907 [96].**

A High-Power Nanosecond Video Amplifier in a Voltage Addition Scheme. *A. N. D'yachko and L. I. Babak.* **1981, No. 3, 702 [127].**

Wideband Power Amplifier Using Bipolar and MOS Field Effect Transistors. *V. P . D'yakonov.* **1981, No. 3, 705 [130].**

High-Voltage dc Amplifier. *L. S. Ganopol'skii and L. V. Kamenev.* **1982, No. 1, 152 [134].**

Wideband Shortwave Transistor Power Amplifier with Improved Linearity. *V. A. Ivanov and A. A. Solov'ev.* **1982, No. 4, 929 [135].**

Broadband, Push-Pull, Output Amplifier Using MOS Power Transistors. *O. A. Frolkov.* **1982, No. 6, 1402 [82].**

Broadband Pulse Amplifier for Output Signals up to 110 V. *V. N. V'yukhin.* **1983, No. 2, 371 [121].**

High-Voltage Amplifier. *S. Yu. Sakalauskas, A. T. Dobrovol'skis, and V. A. Martsinkyavichyus.* **1983, No. 5, 1138 [127].**

High-Voltage DC Amplifier. *L. V. Kamenev.* **1983, No. 6, 1356 [96].**

Transistor Pulse Power Amplifier. *S. I. Skipochka and A. N. Shishkan'.* **1983, No. 6, 1369 [107].**

A Compact Trigger-Pulse Amplifier with a High Output Voltage. *Yu. M. Lebedev-Krasin and B. N. Zharikov.* **1984, No. 1, 137 [124].**

Broadband Transformerless Power Amplifier. *V. N. Kotlyarov and V. V. Polevoi.* **1984, No. 2, 373 [113].**

Broadband Power Amplifier with Distributed Gain along Connecting Lines. *S. N. Sharangovich.* **1984, No. 2, 375 [114].**

Amplifier for Current Pulses to Supply Semiconductor Lasers. *V. K. Eremin.* **1984, No. 3, 659 [128].**

High-Power Nonlinear Amplifier for Shaping Magnetizing Current Pulses. *O. S. Kolotov and N. N. Kudel'kin.* **1984, No. 4, 907 [110].**

Class D Power Amplifier. *N. A. Fefelov and V. V. Ryazantaev.* **1985, No. 2, 420 [145].**

Pulse Power Amplifier with Enhanced Dynamic Response. *V. V. Mosyagin, and Yu. P. Tkachenko.* **1985, No. 4, 852 [110].**

Nonlinear Transistor Amplifier for Shaping Nanosecond Magnetizing Pulses. *A. S. Kashintsev and O. S. Kolotov.* **1985, No. 4, 854 [111].**

Wideband Power Amplifier with High Controllable Linearity. *B. I. Vlasov, V. Yu. Kustov, and A. N. Chaikovskii.* **1985, No. 4, 859 [116].**

High-Speed Push-Pull Amplifier Implemented by MOS Power Transistors. *K. N. Stroev and O. A. Frolkov.* **1985, No. 6, 1343 [100].**

Ultrawideband Transistor Power Amplifiers. *L. I. Babak, M. Yu. Pokrovskii, and S. A. Dergunov.* **1986, No. 5, 1105 [112].**

Nanosecond Pulse Amplifier with 600-V Output. *L. I. Babak, A. N. D'yachko, L. P. Donskikh, V. N. Il'yushenko, and V. D. Obikhvostov.* **1987, No. 6, 1400 [113].**

1.2-kW Low-Frequency Amplifier. *N. A. Fefelov, V. V. Kharchenko, and R. V. Chilikina.* **1988, No. 1, 113 [104].**

High-Voltage Amplifier for Piezoelectric Transducer. *A. B. Krasnov and V. N. Fomin.* **1988, No. 3, 654 [117].**

Wideband Power Amplifier with Increased Linearity. *S. V. Melikhov and A. A. Titov.* **1988, No. 3, 663 [124].**

High-Power DC Scaling Amplifier. *A. A. Danilov.* **1988, No. 6, 1489 [105].**

High-Voltage DC Amplifier with Overload Protection. *O. V. Metal'nikov, O. I. Shanin, and A. V. Shepelev.* **1989, No. 3, 622 [118].**

Wideband DC Power Amplifier. *A. A. Titov.* **1989, No. 3, 625 [120].**

Class-AD High-Voltage Low-Frequency Amplifier. *N. A. Fefelov, V. V. Kharchenko, and R. V. Chilikina.* **1990, No. 1, 130 [131].**

High-Voltage Amplifier. *D. A. Bezuglov, S. A. Eresko, and E. N. Mishchenko.* **1990, No. 4, 849 [125].**

Power Amplifier for Control of Acoustooptic Modulators. *V. P. Mikhailov and G. A. Pribytok.* **1990, No. 6, 1337 [104].**

High-Voltage dc Amplifier. *V. I. Boikov and A. V. Smirnov.* **1991, No. 1, 132 [133].**

Two-Channel Wideband Power Amplifier. *L. P. Donskikh, A. N. D'yachko, S. V. Melikhov, and A. A. Titov.* **1991, No. 1, 136 [136].**

Wideband Power Amplifier for Acoustooptical Systems. *A. N. D'yachko, S. V. Melikhov, and A. A. Titov.* **1991, No. 2, 350 [111].**

7.3. Filters

High-Quality Resonance Filter on Integrating Discretizers. *B. V. Chuvykin, V. D. Mikhotin, and T. B. Osipovich.* **1977, No. 2, 461 [121].**

Active One-Third Octave Microelectronic Filter Using RC-Structures. *A. F. Bulbanyuk, E. D. Volkova, M. V. Kozlov, Yu. A. Masyurenko, and A. D. Nizhenskii.* **1977, No. 2, 464 [123].**

Narrow-Band RC Rejector Filter. *G. I. Alekseev.* **1977, No. 2, 466 [125].**

Integrating Active Low-Frequency Filter Based on Integrated-Circuit Operational Amplifiers. *V. P. D'yakonov, A. G. Kalinenko, and A. A. Maksimchuk.* **1977, No. 3, 774 [146].**

High-Q Selective RC Amplifier. *G. S. Ostapenko and A. G. Ostapenko.* **1977, No. 4, 1083 [147].**

Retunable High-Frequency Band Filters Composed of Standard Elements. *L. M. Kenin and G. M. Kurasova.* **1977, No. 5, 1382 [132].**

Follow-Up Rejector Filter for the Power-Line Frequency and Its Harmonics. *A. Yu. Shchekotov and A. M. Golyavin.* **1978, No. 4, 1034 [175].**

RC Band Filter with Direct Coupling of the Elements. *M. E. Gurchik.* **1978, No. 5, 1342 [169].**

Active Resistive-Capacitive Filters for Information and Measurement Systems. *I. S. Ledovskoi, A. A. Chalyi, and V. L. Knysh.* **1978, No. 6, 1529 [69].**

Self-Tuning Active Low-Pass Filter. *A. V. Tarasov and L. P. Tarasova.* **1979, No. 1, 129 [123].**

Active Band-Pass Filter for Infralow Frequencies. *V. A. Romanov, A. V. Blokhin, M. I. Kolodin, and Yu. I. Rebrin.* **1979, No. 2, 465 [162].**

Microcircuit Gyrator Filters. *I. V. Abramov and G. S. Ostapenko.* **1979, No. 2, 467 [163].**

Digital Band Filter. *A. K. Gorshkov, V. A. Lesnikov, E. P. Petrov, and A. V. Chastikov.* **1979, No. 3, 717 [97].**

Reversible Transistorized Filter. *A. I. Nyva and I. É. Ranne.* **1980, No. 1, 146 [145].**

Spline-Interpolating Filter. *B. V. Chuvykin.* **1980, No. 1, 148 [147].**

Nonlinear Bandpass Filter. *Yu. V. Safroshkin.* **1980, No. 2, 445 [142].**

Tunable ulf Amplifier with Adjustable Amplitude–Phase Characteristic. *L. Yu. Shepelevskii and A. S. Yarygin.* **1980, No. 5, 1177 [116].**

Gyrator Filters Based on Operational Amplifiers. *B. V. Semagin and N. A. Faizulin.* **1981, No. 5, 1229 [124].**

Digital Correlation Filter. *S. B. Makarov and B. M. Medvedev.* **1982, No. 3, 603 [86].**

Tunable Narrow-Band Radio-Frequency Filter. *V. A. Golenishchev-Kutuzov, S. A. Migachev, V. F. Tarasov, and N. A. Shamukov.* **1982, No. 3, 655 [131].**

Electrically Tuned Bandpass Filter with Hybrid Control. *P. I. Gluzman and A. I. Dvorson.* **1982, No. 4, 944 [149].**

Parametric Switching Filter. *V. P. Komolov, V. A. Polezhaev, and P. N. Shashkov.* **1983, No. 4, 892 [136].**

Digital Filter for a Precision Laser-Wavelength Meter. *B. L. Bukovskii, Yu. M. Kaltygin, and V. A. Raikhert.* **1984, No. 1, 155 [140].**

Narrowband Comb Filter of Synchronized-Storage Type. *A. I. Fendrikov and Yu. A. Kotovich.* **1984, No. 2, 377 [116].**

High Selectivity Switching Filters Using Series 298 Integrated Circuits. *A. I. Eremenko.* **1984, No. 2, 381 [118].**

Digital-Analog Matching Filter with Numerical Control. *A. P. Kovalenko, S. B. Makarov, and B. M. Medvedev.* **1984, No. 6, 1429 [119].**

CAMAC-Compatible Variable Analog Filter. *N. V. Belikov.* **1984, No. 5, 1120 [69].**

Active Rejector Filter. *A. G. Kuchinskii, S. E. Pirogov, V. M. Savchenko, and A. K. Yakushev.* **1985, No. 1, 230 [208].**

Adaptive Audio-Frequency Filter. *S. I. Andriyanov and A. G. Root.* **1985, No. 5, 1138 [135].**

Active Filter with Adjustable Transfer Function. *S. Ya. Korsakov and A. A. Shternov.* **1988, No. 3, 680 [137].**

Multichannel Nonminimum-Phase Band-Elimination Filter with Linear Phase Response. *V. I. Nevolin and A. V. Ovchinnikov.* **1991, No. 3, 564 [84].**

7.4. Spectrum analyzers and correlometers

Instrument Analysis of Effective Width of Random Process Spectrum. *A. V. Blokhin and M. I. Kolodin.* **1977, No. 3, 791 [160].**

Instrument Method of Determining Sign of Correlation Coefficient of Random Processes. *A. V. Blokhin and M. I. Kolodin.* **1978, No. 3, 712 [150].**

Increased Accuracy in Audio-Frequency Measurements with the S4-12 and S4-53 Spectrum Analyzers. *S. M. Bezrukov and N. I. Preobrazhenskii.* **1978, No. 3, 714 [152].**

Instrument for the Determination of the Parameters of the Distribution Function in Real Time. *A. D. Tishchenko, A. A. Zori, and G. D. Fesivskii.* **1978, No. 4, 948 [103].**

Two-Channel Broadband Spectrum Analyzer. *O. E. Marykivskii, D. G. Levchenko, and A. N. Bagimov.* **1978, No. 6, 1523 [64].**

Broadband Automatic Digital Correlator. *R. M. Gazdiev, I. E. Kofanov, A. N. Mos'kin and V. I. Pelipets.* **1978, No. 6, 1526 [66].**

Short-Time Orthogonal Correlation Analyzer with Time-Scale Conversion. *S. F. Simovskaya, V. S. Golikov, and E. Z. Sakhnovskii.* **1979, No. 2, 401 [104].**

An lf and vlf Spectrum Analyzer. *S. A. Alekperov, Ch. O. Kadzhar, E. Yu. Mamedov, and É. A. Salaev.* **1979, No. 2, 404 [107].**

High-Sensitivity Low-Frequency Spectrum Analyzer. *G. P. Zhigal'skii and Yu. A. Tyurin.* **1980, No. 2, 391 [94].**

Machine Determination of Integral Characteristics of Random Processes. *A. V. Blokhin.* **1980, No. 2, 393 [96].**

Plotting Current Complex Spectra in Real Time. *A. I. Samoilov and N. A. Chechulina.* **1980, No. 5, 1143 [83].**

Multichannel Parallel Correlometer with Fast Serial Readout. *L. G. Goverdovskaya, L. A. Reshetov, S. P. Serkov, and A. G. Strochilov.* **1980, No. 6, 1376 [57].**

Reducing the Sensitivity Threshold of an SCh-27 Spectral Analyzer in the 26-37.5-GHz Frequency Range. *N. M. Abramov and N. M. Mal'kov.* **1981, No. 2, 390 [96].**

Analog-Pulse Correlator Using Industrial Instruments. *S. A. Ivanov and V. Yu. Vetrov.* **1981, No. 5, 1183 [82].**

Low-Frequency Spectrum Analyzer of the Correlation Type. *V. A. Kaznacheev, I. M. Butenko, G. G. Bunin, K. M. Bykov, and N. M. Zaitsev.* **1981, No. 5, 1186 [85].**

A Method of Measuring Time Distributions. *V. P. Kondrat'ev, L. V. Krasnov, and I. G. Yatsyshin.* **1981, No. 5, 1192 [90].**

Sign Correlator for Nonstationary Random Pulse Processes. *Yu. P. Egorov and B. L. Pivovarov.* **1981, No. 6, 1403 [68].**

An Instrument for Measuring the Integral Distribution Function of Noise. *Yu. D. Danilov, L. G. Lyashed'ko, and I. T. Trofimenko.* **1981, No. 6, 1406 [70].**

Random Event Simulator with Selectable Probability Characteristics. *V. I. Popova and S. V. Tyurin.* **1982, No. 2, 355 [72].**

Analyzer of the Probabilistic Characteristics of the Distribution Function of Random Processes. *N. M. Komar.* **1982, No. 6, 1384 [67].**

System for Measuring the Correlation Functions of Complex Signals. *G. V. Stogov and Yu. V. Petelin.* **1983, No. 6, 1342 [84].**

Autonomous Correlation-Coefficient Meter. *A. L. Kurakin.* **1984, No. 6, 1414 [106].**

Integral-Correlation l/f-Noise Meter. *V. V. Matveev.* **1985, No. 5, 1123 [122].**

Interface for Kh6-4 Correlation Meter and D3-28 Microcomputer. *O. I. Karoblev, A. V. Stepanov, and I. V. Yaminskii.* **1985, No. 5, 1126 [124].**

Correlometer Based on Pulse Analyzer. *B. I. Soldatov and V. B. Rol'shchikov.* **1985, No. 6, 1332 [90].**

Statistical Pulse Analyzer. *B. I. Petrov.* **1986, No. 5, 1066 [77].**

Automatic Remote Control of SK4-72 Spectrum Analyzer. *G. G. Belyaev.* **1988, No. 4, 1071 [201].**

Multichannel Digital Correlometer. *A. A. Golynkin.* **1989, No. 1, 111 [101].**

Fast Generation of Sign Correlation Functions. *V. N. Romadov and A. Yu. Tokarev.* **1990, No. 6, 1311 [82].**

7.5. Oscillography

Systems Based on Electron-Beam Memory Tubes and Their Use for the Analysis of Single Pulsed Signals in the Nanosecond Range (Review). *S. V. Denbnovetskii, A. N. Shkuro, and I. I. Orlov.* **1978, No. 3, 557 [7].**

Oscilloscope for Displaying Curves in Polar Coordinates. *V. P. D'yakonov, A. G. Kalinenko, A. A. Maksimchuk, V. S. Podoprigorov, A. M. Remnev, and O. V. Rudnev.* **1977, No. 4, 1129 [189].**

Increased Recording Speed for Wide-Band Oscilloscopes. *V. I. Zhavoronkov.* **1978, No. 1, 236 [220].**

Multichannel Oscillograph. *I. G. Larin, V. A. Rezvov, and L. I. Yudin.* **1978, No. 2, 450 [172].**

Controlled-Delay Marker Circuit for Oscillograph. *V. S. Batrachenko and S. K. Boyarskii.* **1978, No. 2, 455 [177].**

Use of Electron-Optical Image Converter for Indicating Single Signals. *V. S. Gusel'nikov, V. I. Zhavoronkov, S. I. Zhavoronkov, and P. I. Chilikin.* **1978, No. 4, 1021 [163].**

Use of Stroboscopic Oscilloscopes for the Investigation of Random Microwave Processes. *V. N. Soldatkin and G. M. Vorontsov.* **1978, No. 4, 1023 [165].**

Attachment for an Oscilloscope Used to Investigate Digital Circuits. *V. A. Suchkov.* **1978, No. 5, 1351 [177].**

Wideband Oscilloscope Input Attenuator. *D. A. Kachina, E. S. Mironov, V. N. Vishnevskii, and V. M. Nemirovskii.* **1979, No. 2, 461 [158].**

Investigation of a Subnanosecond Neodymium Glass Pulse Oscillator with the Aid of High-Speed Oscillography. *A. G. Berkovskii, N. E. Bykovskii, Yu. I. Gubanov, N. V. Gusev, N. V. Pletnev, Yu. V. Senatskii, G. V. Sklizkov, A. N. Sushchenko, and R. P. Tarasov.* **1979, No. 3, 804 [178].**

Broadband Stroboscopic Device for Measuring Instantaneous Values of Signals for an Electron Beam Oscilloscope. *V. N. Vishnevskii, N. A. Kukharenko, and A. G. Petrovich.* **1979, No. 5, 1355 [154].**

Actuation of an Oscilloscope by a Light Pulse. *A. I. Andrushko, Yu. G. Malinin, and Kh. M. Salikhov.* **1980, No. 2, 513 [202].**

Reading of Oscillograms of Single Fast Processes by Tracking Conversion Using a Dissector Tube. *R. A. Ariskina, S. D. Fanchenko, and A. P. Tsitovich.* **1980, No. 3, 643 [96].**

Attachment to a Stroboscopic Oscillograph for Suppressing Drift and Noise. *A. Yu. Dargis and Yu. P. Kundrotas.* **1980, No. 4, 947 [134].**

Method of Increasing the Speed of Response of Cathode-Ray Tube Screens. *K. G. Karakozov, A. Z. Mikadze, and V. I. Khvingiya.* **1980, No. 4, 1050 [229].**

Synchronous High-Speed Oscillography of Voltage and Current for Studying the Release of Energy in a Vacuum Spark Discharger. *A. V. Grechishnikov, V. I. Derzhiev, V. F. Ivanova, G. I. Ramendik, and Yu. A. Surkov.* **1980, No. 5, 1149 [89].**

Precision Light Beam Oscilloscope Time Marker Generator. *V. Y. Yakovlev.* **1980, No. 6, 1401 [82].**

Oscilloscope Attachment for Multichannel Display of Digital Signals. *Yu. A. Khaikin.* **1981, No. 2, 447 [150].**

Oscilloscope Sweep Triggering by a Given State of a Microcomputer Bus. *V. M. Kunitsyn and G. I. Nepeleva.* **1981, No. 6, 1408 [72].**

Control Circuit for 13LN2 Storage Cathode-Ray Tube. *K. N. Pripisnov, R. Z. Besedovskii, V. M. Kuznetsov, and M. A. Sungurovskii.* **1983, No. 2, 387 [135].**

Noise-Immune Oscilloscope Synchronizer. *A. M. Sitdikov and A. M. Lur'e.* **1985, No. 3, 717 [194].**

Intensifier-Pulse Generator for Cathode-Ray Storage Tubes. *G. L. Vareshkin, G. P. Veshnyakov, Yu. A. Golovastikov, and S. G. Rabinovich.* **1985, No. 4, 836 [95].**

Correction of Raster and Focusing Distortions in Cathode-Ray Tubes. *O. L. Kulyas and A. P. Chernov.* **1985, No. 5, 1182 [175].**

Increasing the Sensitivity of Photographic Materials by a Strong Electric Field for Signal Recording from an Oscilloscope Screen. *A. Ya. Didenko, B. D. Lemeshko, and V. A. Ostrovskii.* **1986, No. 2, 471 [189].**

Interface for S7-9 Sampling Oscilloscope with Élektronika D3-28 Microcomputer. *R. A. Bagautdinov, Kh. G. Bogdanova, and D. Sh. Idiatullin.* **1988, No. 5, 1180 [80].**

7.6. Television techniques

Dissectors and Their Uses (Review). *S. S. Vetokhin, A. N. Pertsev, and I. V. Reznikov.* **1981, No. 1, 6 [12].**

Time Characteristics of Output of LI-214 Superorthicon. *V. V. Kudryashov, A. S. Kazakov, A. S. Makunin, V. P. Malyutin, I. N. Matveev, and B. V. Poletaev.* **1977, No. 1, 147 [132].**

Differential Image Discriminator. *A. N. Korol'.* **1977, No. 1, 185 [164].**

Threshold Device with Compensation for Variations in Background and Video Signal. *L. I. Skorobogat and V. G. Lyutsau.* **1977, No. 5, 1335 [94].**

Variable-Orientation Marker Generator. *V. S. Govorov.* **1977, No. 5, 1351 [107].**

Synchropulse Generator for Video Control Systems. *B. A. Polonskii.* **1978, No. 4, 985 [132].**

Digital Dissector Scanning Generator. *Yu. V. Martyshevskii.* **1978, No. 6, 1532 [72].**

Cancellation of Nonlinearity of the Scanning of a Transmitting Television Camera. *Yu. A. Drozhbin, V. E. Prokopenko, L. A. Rass, and B. M. Stepanov.* **1979, No. 1, 158 [149].**

Unit for the Compensation of the Nonuniformity of a Television Signal. *O. L. Kulyas, V. G. Balobanov, and M. M. Fedorchenko.* **1979, No. 1, 160 [151].**

Vidicon as a Buffer Storage in TV Measuring System. *V. V. Volkov, V. V. Kantserov, A. G. Lapuk, Yu. V. Ozerov, and S. A. Plakhov.* **1979, No. 2, 389 [93].**

Possible TV Recording of Particle Tracks in Streamer Chamber. *V. V. Volkov, V. V. Grechnev, V. V. Kantserov, and S. V. Somov.* **1979, No. 3, 674 [57].**

Device for the Input of Video Information into an Electronic Computer. *V. P. Andreev and G. G. Vainshtein.* **1979, No. 5, 1300 [106].**

Thyristor Schemes for Controlling a Superorthicon in the Slave Mode. *V. A. Poltoratskii.* **1979, No. 6, 1611 [121].**

Optoelectronic Image Discrimination Apparatus by Optical Density Levels. *É. M. Kurashov.* **1980, No. 1, 154 [152].**

Device for Checking and Measuring Parameters of Circular Scanning of Electron Beam in LI605-1 Dissector. *V. A. Larionov.* **1980, No. 6, 1398 [80].**

Scheme for Processing the Signal from a Metal-Insulator-Semiconductor Photocell Operating in the Energy-Storage Mode. *G. L. Kuryshev and N. I. Khaliullin.* **1981, No. 1, 100 [98].**

A Numerical Scan for a Dissector Tube. *S. A. Gubkin, V. A. Mikhailov, and A. N. Kuchin.* **1981, No. 2, 431 [135].**

Equipment for Rotating the Raster of a TV Transmitting Camera. *V. I. Shamis, I. S. Serbin, V. V. Korneichuk, and I. S. Zadorozhnyi.* **1981, No. 4, 985 [152].**

Stroboscopic Television Apparatus Based on a Superorthicon. *V. A. Gangardt and A. L. Shalyapin.* **1981, No. 4, 1016 [180].**

Use of Charge Coupling Devices in Optical Information Processing Systems. *V. A. Arutyunov, N. A. Esepkina, B. A. Kotov, Yu. A. Kotov, A. P. Lavrov, and I. I. Saenko.* **1982, No. 1, 104 [98].**

Digital Device for Generating Parabolic Voltages for an Electron Beam Tube Aberration Correction System. *O. L. Kulyas and A. A. Kamalyagin.* **1982, No. 2, 352 [69].**

Interfacing a TV Camera to Charge-Coupled Devices for Automatic Processing of Particle Track Images. *A. Ya. Astakhov and G. M. Komov.* **1982, No. 3, 578 [64].**

Pulse Shaper for Controlling Fast Charge-Coupled Device Registers. *P. A. Dik.* **1982, No. 3, 628 [108].**

Generator for a Digital Tracking Dissector Microraster. *Yu. V. Martyshevskii and V. A. Kormilin.* **1982, No. 3, 638 [117].**

A Unit for Recording the Output Signals from LI 604 and LI 605 Image Dissectors Working in the One-Electron Mode. *V. N. Burov, L. F. Vavulo, V. V. Zhuk, P. I. Kirillyuk, I. V. Reznikov, and A. N. Tikhomirov.* **1982, No. 4, 868 [82].**

Digital TV Sampling Pulse Generator. *O. P. Maslyukov and B. I. Mazurik.* **1983, No. 2, 370 [119].**

Television System for Monitoring the Position of the Target in Experiments on Laser Thermonuclear Synthesis. *B. L. Vasin, A. D. Valuev, O. L. Goryachuk, A. E. Danikov, R. G. Mai, G. V. Sklizkov, Si. I. Fedotov, and S. A. Chaushanskii.* **1983, No. 5, 1175 [160].**

Television-Line Selector. *V. I. Venglyuk.* **1985, No. 3, 621 [112].**

Television Display for Electrical Signals. *I. V. Peretyagin and A. N. Tsybul'nik.* **1985, No. 4, 896 [147].**

Preliminary Video-Signal Processing in Television Scanner. *Yu. Ya. Karlyshev, O. F. Nemets, V. A. Grashilin, and V. A. Kisurin.* **1985, No. 6, 1296 [57].**

Encoders in Laser Graphics-Data Read-Write Apparatus. *A. A. Ivanov, A. F. Morozov, Yu. S. Nechaev, and T. G. Yakovleva.* **1985, No. 6, 1322 [80].**

Image-Processing System Based on Élektronika-60 Computer. *S. A. Kolesnikov, V. V. Lyubarskii, and E. A. Mnatsakanyan.* **1986, No. 1, 52 [51].**

Television Transient Recorder. *V. P. Gubanov.* **1986, No. 3, 670 [151].**

Device for Recording Radio-Frequency Holograms and Images in Real Time. *I. F. Strukov, Yu. I. Gridin, and A. N. Lukin.* **1986, No. 4, 881 [118].**

Controller for Linear Imaging Device Implemented by Charge-Coupled Devices and Interfaced with Élektronika-60 Computer. *V. V. Ivanov.* **1986, No. 5, 1052 [63].**

Optoelectronic Image Converter Based on MF-14 Integrated-Circuit Photodiode Array. *V. D. Gorodilov.* **1987, No. 1, 142 [129].**

Control of Data Characteristics of Photodetector Based on Charged-Coupled Device for Image Input to Computer. *S. A. Molodyakov.* **1987, No. 3, 572 [71].**

Analog-Digital Processing of Charge-Coupled Devices Output Signals. *A. K. Elefterov, L. G. Karapetyan, and T. V. Abgaryan.* **1987, No. 6, 1357 [75].**

Television Device for Computer Graphics Input. *V. G. Dement'ev, Yu. Yu. Dudin, and S. A. Pendyur.* **1988, No. 1, 79 [74].**

OPTAN Digital Image-Processing Television System. *M. P. Lisitsa, V. N. Aref'ev, N. V. Latyshenko, S. V. Polishchuk, A. V. Stolyarenko, S. B. Ryazanov, and I. M. Yunakov.* **1988, No. 5, 1163 [65].**

System for Storage and Processing of Nonrepeating Electrical Signals from Screen of Ultrahigh-Speed Oscilloscope. *M. V. Vysogorets, A. F. Myasnikov, M. Yu. Petrov, V. N. Platonov, V. E. Postovalov, A. M. Prokhorov, V. P. Simonov, P. L. Sokolova, A. D. Chulkin, and M. Ya. Shchelev.* **1988, No. 5, 1168 [69].**

Television Analyzer for Track-Detector Photographs. *I. P. Shevyakov.* **1989, No. 1, 82 [74].**

Automated System for Image Recording and Processing. *N. V. Egorov and A. G. Karpov.* **1989, No. 2, 355 [90].**

Method of Nuclear-Track Recognition for Automated Processing of Radiographic Images. *V. D. Rusov and V. I. Sviridov.* **1989, No. 4, 800 [63].**

Universal Programmable Generator for Charge-Coupled Photodetectors. *A. V. Lependin and A. G. Safonov.* **1989, No. 4, 866 [118].**

Device for Television Tracking of Astronomical Objects. *P. P. Sukhov, V. V. Dragomiretskii, R. A. Chaichuk, N. R. Burlak, and L. V. Korneichuk.* **1990, No. 2, 427 [174].**

Highly Sensitive Astronomical Television Apparatus. *S. O. Grabkin, V. I. Koroteev, and F. T. Mill'.* **1990, No. 6, 1424 [176].**

Measurement of Proton-Beam Parameters by Means of Digital Television Diagnostic System. *V. A. Vazhenin, S. D. Borovkov, A. V. Evtikhiev, V. A. Zenin, V. P. Novikov, A. A. Ornatov, Yu. A. Romanov, A. M. Ryzhkov, E. V. Serga, A. V. Kharlamov, G. V. Khitev, and A. A. Yagnakov.* **1991, No. 4, 771 [36].**

Adaptive Controller for CCD-Based Video-Signal Generator. *V. M. Klochko, V. V. Korobkin, A. A. Redchuk, and I. V. Shpak.* **1991, No. 4, 827 [84].**

7.7. Power supplies and regulators

Precision Power Stabilizer. *L. B. Mashkinov, A. B. Petukhov, and L. N. Gal'perin.* **1978, No. 1, 149 [145].**

Regulated Source of Bipolar Voltage. *V. I. Zametin, V. A. Zazulin, and A. N. Putilin.* **1978, No. 2, 457 [180].**

Voltage Regulator with Low Output Resistance. *A. V. Nikulin.* **1978, No. 2, 459 [181].**

Economic Voltage Indicator for Independent Power Supply. *I. A. Dubrovskii and A. I. Sheremet'ev.* **1979, No. 2, 526 [216].**

Voltage Regulator with Low Output Impedance. *B. G. Denison.* **1979, No. 3, 777 [151].**

Compensated Current Source in the Submillimeter Range. *N. I. Zheludkov, V. A. Kareev, and V. V. Meer.* **1979, No. 5, 1363 [160].**

Precision Bipolar Voltage Stabilizer. *Yu. S. Serlik and A. I. Fukel'man.* **1980, No. 2, 454 [150].**

Three-Phase Rectifier Circuits with Voltage Tripling. *M. I. Kozlov, P. P. Vershinin, V. L. Gershenkroi, N. I. Gordienko, V. I. Goshchurenko, and Ya. V. Gershinskii.* **1980, No. 3, 718 [163].**

Voltage Regulator with Relative Instability of 10^{-6}. *V. M. Pudalov.* **1980, No. 4, 961 [146].**

Precision Voltage Regulator. *V. G. Galalu, S. V. Nikulin, and A. V. Rykov.* **1980, No. 4, 966 [151].**

Universal Power Supply with Transformerless Input. *S. I. Marusov.* **1981, No. 3, 720 [145].**

Regulated Power Supply for Integrated Circuits. *A. B. Makhotenko and Yu. M. Kabanov.* **1981, No. 6, 1475 [134].**

Voltage Regulator. *V. P. Neverova and B. A. Semanov.* **1981, No. 6, 1478 [137].**

DC Voltage Stabilizers with a Controllable MDS Power Transistor. *V. P. D'yakonov and V. M. Dolin.* **1982, No. 1, 178 [158].**

A Microampere-Range Stabilized Current Generator with Grounded Load. *V. K. Ignat'ev and S. G. Semenchinskii.* **1982, No. 5, 1144 [95].**

Reference-Voltage Sensor. *P. P. Vatamanyuk and A. I. Savchuk.* **1982, No. 5, 1288 [207].**

Simple 220-V Independent Power Source. *V. M. Ioffe and A. G. Alekseev.* **1983, No. 3, 638 [135].**

Precision Source of Reference Voltage. *A. V. Churbakov.* **1984, No. 3, 695 [158].**

Economical Precision Voltage Regulator. *G. A. Kapustin and M. V. Perepukhov.* **1984, No. 4, 1030 [213].**

High-Stability Bipolar Power Supply. *L. N. Voitsekhovich and I. P. Kovashevich.* **1984, No. 6, 1440 [129].**

Digitally Controlled Current Source. *S. I. Kutsarov and A. M. Mitev.* **1984, No. 6, 1443 [131].**

Small Stabilized-Voltage Source with Transformerless Input. *V. V. Popivnenko, B. V. Grinbert, N. P. Kraevskaya, G. G. Tyukhai, and G. E. Chipinskaya.* **1984, No. 6, 1445 [133].**

Supply Source for Electric Arc Welding of Optical Fibers. *V. D. Nazarov, Yu. I. Sachko, and A. G. Tereshchenko.* **1985, No. 1, 246 [220].**

Universal Current Source for Avalanche Transit Diodes. *N. M. Zakarlyuk and V. Ya. Noskov.* **1985, No. 1, 143 [132].**

Precision Direct-Current Regulator. *A. B. Andreev and V. D. Vedernikov.* **1986, No. 4, 886 [122].**

Reference-Voltage Supply. *V. A. Kantserov and V. B. Strigin.* **1986, No. 5, 1204 [198].**

Micropower Reference-Voltage Supply. *S. V. Fedichkin and Yu. V. Malevanyi.* **1986, No. 6, 1387 [133].**

Integrated-Circuit Transistor Arrays in Precision Voltage Regulators. *A. V. Churbakov.* **1987, No. 1, 153 [139].**

DC Voltage Regulator for Micropower Devices. *V. V. Volovskii.* **1987, No. 1, 158 [143].**

Programmable Current Supply. *O. P. Novikov and A. I. Fedonin.* **1988, No. 4, 968 [122].**

Digital Voltage Regulator. *V. B. Pavlovskii.* **1988, No. 4, 1079 [208].**

Digital Current Controllers for Automatic Control Systems. *E. P. Bocharov, V. A. Polyanskii, and P. A. Stoyanov.* **1988, No. 5, 1323 [193].**

Programmable-Power-Supply Module with Output of 20-256 V. *V. V. Valakh, V. V. Danilevich, and A. I. Dolgitskii.* **1988, No. 6, 1510 [123].**

Compact Line Power Supply. *B. A. Baginskii and V. N. Makarevich.* **1989, No. 6, 1363 [116].**

Control of TES Laboratory Power Supplies. *N. S. Baranchuk and Yu. V. Vovchenko.* **1989, No. 6, 1418 [164].**

Reference-Voltage Supply of Enhanced Reliability. *V. A. Kolyasnikov.* **1990, No. 2, 381 [132].**

Reference-Voltage Supply. *V. K. Ignat'ev and A. V. Nikitin.* **1990, No. 4, 957 [214].**

Power Supply for Transceiver of Fiber-Optic Communication Line between Computers. *E. S. Belyakov, A. B. Semenov, and V. M. Vatutin.* **1990, No. 5, 1142 [158].**

Variable Reference-Voltage Source. *O. I. Andronov, V. G. Brovchenko, and S. T. Evdokimov.* **1991, No. 2, 375 [133].**

Laboratory Thermoelectric Current Source with Heat Removal by Liquid Nitrogen. *V. P. Babin, E. K. Iordanishvili, A. A. Kodirov, M. B. Nabiev, and Kh. O. Olimov.* **1991, No. 2, 447 [195].**

Simple Stable Current Source. *V. A. Makarov and R. A. Sivkov.* **1991, No. 5, 1182 [180].**

7.7.1. Alternating-current voltage regulators

Wide-Band Low-Frequency Sinusoidal Voltage Stabilizer. *S. P. Novitskii, I. I. Burenkov, and V. I. Kenzin.* **1977, No. 3, 778 [150].**

Hall-Probe Sinusoidal-Current Stabilizer. *V. D. Sirotov.* **1980, No. 4, 956 [142].**

Low-Power Stabilizer for ac Amplitude. *A. E. Gudilin.* **1980, No. 4, 972 [158].**

Stable Sine-Wave Source. *V. D. Korovin and S. M. Vovk.* **1981, No. 2, 458 [161].**

Power Regulator. *V. I. Voronov.* **1982, No. 3, 671 [145].**

Electronic Line-Voltage Regulator. *N. N. Novotortsev and K. A. Sharov.* **1986, No. 3, 678 [158].**

Computer-Controlled High-Voltage AC Supply. *V. A. Kuznetsov, A. A. Kolpakov, and O. I. Linev.* **1988, No. 2, 390 [115].**

Alternating-Current Voltage Regulator. *B. B. Malkov, V. V. Yudin, Yu. N. Sukharev, and L. A. Vetchanin.* **1988, No. 4, 1080 [210].**

Magnetic Controller of ac Voltage. *V. F. Tarasov and G. S. Shakurov.* **1990, No. 6, 1357 [120].**

7.7.2. Pulse controllers

Thyristor Voltage Stabilizer with Pulse-Width Modulation. *A. S. Gribakin.* **1977, No. 1, 192 [169].**

Semiconductor Devices for Control and Stabilization of Currents of Motor Generators. *S. T. Latushkin, V. A. Rezvov, and L. I. Yudin.* **1977, No. 1, 194 [171].**

Means of Transformerless Voltage Conversion and Construction of Transformerless Secondary Power Sources. *L. M. Braslavskii, A. M. Sazhnev, and V. G. Kobylyanskii.* **1977, No. 4, 1132 [192].**

Switching Power Supplies. *E. N. Panasyuk, E. R. Kosyi, and B. A. Pavlov.* **1977, No. 5, 1407 [153].**

dc Current Regulator. *G. L. Benediktov and N. M. Novikova.* **1977, No. 5, 1410 [155].**

Logic-Signal Controlled Thyristor ac Switch. *N. N. Belous.* **1977, No. 5, 1412 [157].**

Digital Asynchronous System for Phase Control with a Thyristor Converter. *N. I. L'yanova and A. A. Tunkin.* **1978, No. 5, 1348 [174].**

Reversible Transistor Converter for Controlling dc Motor. *A. P. Leonov, V. V. Popov, and E. A. Ustinov.* **1978, No. 5, 1354 [180].**

Methods of Voltage Stabilization in Converters without Transformers. *L. M. Braslavskii, A. M. Sazhnev, and V. G. Kobylyanskii.* **1979, No. 2, 516 [206].**

Cascade-Type Transformerless Low-Voltage Rectifier with Increased Efficiency. *L. G. Zotov and I. V. Zolotarev.* **1979, No. 3, 780 [154].**

Control System for a Three-Phase Bridge Rectifier. *Yu. A. Ryabichev and A. N. Smirnov.* **1980, No. 1, 183 [178].**

Improved Dynamic Parameters of Pulsed Voltage Stabilizers from Use of Interrupted Choke Currents. *L. A. Morozova and L. A. Sirotin.* **1980, No. 2, 456 [152].**

High-Power Temperature-Protected Transistor Switch for Currents to 500 A and Voltages to 100 V. *E. A. Gritsevskii, I. K. Meshkovskii, and V. V. Togatov.* **1980, No. 3, 712 [158].**

Control of Thyristor ac Switches. *S. S. Rochev.* **1980, No. 4, 957 [143].**

Logic-Signal-Controlled Power Switches for Contactless Commutation of Industrial Line Voltage. *G. A. Onanyan.* **1980, No. 4, 959 [145].**

Thrystor–Transistor Voltage Stabilizer. *V. A. Filippov, S. M. Chmykhalov, and Yu. M. Belyaev.* **1981, No. 2, 456 [160].**

Three-Phase Controlled Reversing Thyristor Rectifier. *V. N. Sidorov, A. A. Khomenko, E. B. Reginya, and G. N. Romanova.* **1982, No. 4, 970 [171].**

Parallel Closable-Thyristor Inverter. *P. L. Gluzman, Yu. A. Chernykh, and V. V. Yudin.* **1983, No. 1, 104 [97].**

Switching Voltage Regulator with Low High-Frequency Noise Level. *A. A. Kuz'min and V. I. Sen'kov.* **1983, No. 2, 404 [150].**

Optoelectronic-Thyristor Regulated DC Supply. *B. G. Kozlov.* **1985, No. 4, 905 [155].**

Multichannel Power Supply. *V. K. Tatienko, L. L. Pavlovskii, and A. M. Molibog.* **1988, No. 2, 385 [110].**

Pulse-Duration Modulator for Transistor Converter with 100% Output-Power Control. *G. G. Antonyan.* **1989, No. 5, 1157 [164].**

7.7.3. High-voltage power supplies

High-Voltage Source of Reference Voltage for Supplying an X-Ray Electron Spectrometer. *S. M. Mikhailov.* **1977, No. 1, 190 [168].**

High-Voltage Transformerless dc Stabilizer. *M. B. Leitman and V. V. Kruglov.* **1977, No. 5, 1409 [154].**

Stabilized High-Voltage Converter. *G. P. Petin and A. A. Martirosyan.* **1978, No. 2, 456 [178].**

Power Supply for 1024-Channel Spectrometer with Semiconductor Detector. *L. A. Lozovskii, V. V. Solov'ev, and A. S. Khimchenko.* **1978, No. 3, 735 [170].**

High-Voltage Regulated Power Supply. *B. A. Baginskii, V. N. Makarevich, and M. M. Shtein.* **1978, No. 3, 737 [172].**

Universal Power Supply for Photoelectron Multiplier. *V. A. Zazulin and V. I. Zametin.* **1978, No. 5, 1358 [183].**

Small High-Voltage Stabilizer for the Supply of X-Ray Detectors. *S. M. Mikhailov.* **1978, No. 6, 1580 [111].**

Precision Small High-Voltage Stabilized Photomultiplier Power Supply. *V. I. Anikin.* **1979, No. 1, 169 [159].**

Electronic Voltage Control of B5-24A High-Voltage Source. *E. F. Klimchuk, V. T. Cherepin, and O. A. Yakubtsov.* **1979, No. 2, 525 [215].**

High-Voltage Power Supply System for Electrostatic Deflector. *V. A. Akkuratov, A. A. Glazov, V. V. Kudryashov, M. M. Semenov, N. G. Shakun, and Yun Ho Zin.* **1979, No. 4, 1083 [189].**

Economical Photomultiplier Power Source. *Sh. R. Gizatullin.* **1979, No. 5, 1361 [159].**

High-Voltage Power Unit for an Autoionization Microscope. *N. V. Nikonenkov.* **1979, No. 6, 1634 [140].**

Stabilized High-Voltage Supply. *L. S. Poleshchuk and M. D. Pritychenko.* **1980, No. 1, 179 [174].**

High-Voltage Adjustable dc Source. *E. V. Grodzinskii and V. V. Chashchin.* **1980, No. 3, 707 [153].**

Power Source for Current Ionization Chamber. *R. É. Bagdasarov, A. E. Merkulov, and V. E. Taranov.* **1980, No. 3, 709 [155].**

Stabilized High-Voltage Power Supply for a Photomultiplier. *K. P. Kureichik and S. A. Zaikin.* **1980, No. 4, 967 [152].**

Power Supplies for Apparatus Subjected to a High Voltage. *A. N. Bryukhanov, A. G. Volkovich, S. T. Latushkin, V. G. Mikhailov, V. A. Rezvov, and L. I. Yudin.* **1980, No. 4, 969 [154].**

Regulated High-Voltage Power Supplies. *V. N. Murugov, G. P. Okutin, V. I. Pankratov, and A. V. Senik.* **1980, No. 5, 1232 [164].**

High-Voltage Supply System for Wide-Gap Spark Chambers. *S. M. Rozhdestvenskii and B. A. Khrenov.* **1980, No. 6, 1439 [116].**

Type K169AA1 Microcircuit in High-Voltage Supplies. *G. A. Aver'yanov.* **1980, No. 6, 1442 [119].**

Digital Bias Voltage Controller for Semiconductor Detectors. *D. A. Gladyshev, V. L. Kasatov, and B. N. Li.* **1981, No. 3, 715 [140].**

High-Voltage Stabilized Power Supply with an Adjustable Output Voltage. *A. P. Koba, I. A. Mikheev, V. M. Ogenko, R. A. Petrenko, and V. A. Yakunin.* **1981, No. 4, 997 [162].**

Charger for a Capacitive Storage Element. *E. A. Meleta and I. M. Raevskii.* **1981, No. 6, 1445 [108].**

Stabilized Current Source with dc Decoupling at 30 kV. *V. S. Belkin and A. S. Donin.* **1982, No. 2, 413 [124].**

Precision High-Voltage Source. *E. L. Kantor and V. V. Lantsov.* **1982, No. 3, 667 [141].**

High-Voltage dc Converter. *V. A. Baranov, V. I. Makeev, and O. P. Novikov.* **1982, No. 6, 1428 [103].**

Single-Transistor High-Voltage Regulator. *V. V. Trifonov and A. N. Gorbachev.* **1982, No. 6, 1430 [105].**

Testing Instrument for High-Voltage Sources. *A. G. Klyukov, V. L. Fedorov, and V. K. Nagibin.* **1983, No. 1, 137 [118].**

Power Supply to Circuits at a High dc Potential. *S. N. Gryaznov, E. A. Vakhnin, and V. N. Tikhonov.* **1983, No. 3, 634 [132].**

Photomultiplier Dynode Voltage Regulator. *V I. Antonov, I. R. Gulakov, and S. V. Kholondyrev.* **1983, No. 3, 636 [133].**

Precision Adjustable High-Voltage Power Supply. *A. P. Koba, I. A. Mikheev, V. M. Ogenko, and V. G. Bosonogov.* **1983, No. 4, 919 [160].**

Efficient Voltage Converter for a Tank Capacitor Based on a Piezoelectric Transformer. *G. I. Iz'yurova, A. A. Sorokin, Yu. L. Spirin, and V. N. Frolov.* **1984, No. 1, 113 [108].**

A System for the Control and Stabilization of the High-Voltage Supply of Streamer Chambers. *L. S. Vertogradov, Ya. V. Grishkevich, T. A. Lomtadze, V. V. Tokmenin, Yu. Fedorovich, and G. A. Shelkov.* **1984, No. 2, 298 [41].**

High-Voltage Stabilized Source of Charging Voltages. *A. G. Nassonov and L. S. Lantsman.* **1984, No. 2, 398 [134].**

Power Supply for a Photomultiplier. *K. P. Kureichik, S. N. Baranov, and N. V. Kozlovskii.* **1984, No. 3, 700 [162].**

Programmable Photomultiplier Power Supply. *E. L. Kantor, V. V. Lantsov, and V. M. Potapov.* **1985, No. 1, 145 [134].**

Computer-Controlled Regulated High-Voltage Supply. *A. A. Nakhan'kov, A. Yu. Nesterov, O. A. Pavlovich, I. V. Reznikov, E. D. Tverdokhlebov, and A. V. Sholukh.* **1985, No. 4, 898 [150].**

Regulated Supply with Variable Output Voltage of 300 V to 20 kV. *V. K. Belyaev, V. N. Poduyazhnikov, and V. K. Chevokin.* **1985, No. 4, 900 [152].**

High-Voltage Supply for Backward-Wave Tubes. *A. Ch. Belyachits, P. D. Kukharchik, and V. G. Semenchik.* **1985, No. 4, 903 [154].**

High-Voltage Supply for Backward-Wave Tube. *A. N. Bryukhanov, P. M. Kosarev, S. T. Latushkin, and L. I. Yudin.* **1985, No. 5, 1133 [131].**

High-Voltage Converter. *Yu. I. Petrov and A. D. Pokryvailo.* **1986, No. 2, 419 [141].**

High-Voltage Transistor Converter for Pulsed X-Ray Sources. *S. B. Krasil'nikov, A. L. Kristalinskii, L. N. Lozovoi, S. N. Markov, and E. I. Sindalovskii.* **1986, No. 2, 421 [143].**

Variable Power Supply for Photomultipliers. *V. I. Sirotin.* **1986, No. 5, 1140 [143].**

High-Voltage Power Unit for Deflektron Television Camera Tube. *A. A. Grebnev and A. D. Vitman.* **1986, No. 5, 1205 [199].**

Stable Alternating-Sign High-Voltage Supply. *I. K. Didebulidze and N. I. Tsagareli.* **1987, No. 1, 155 [141].**

General-Purpose Programmable Voltage Divider for Photomultipliers with Increased Load. *V. Ya. Zubchenok, A. A. Nakhan'kov, I. V. Reznikov, and E. D. Tverdokhlebov.* **1987, No. 2, 367 [112].**

Regulated Bipolar 0-200-kV Supply. *Yu. V. Borisov, V. F. Ezhov, S. N. Ivanov, V. M. Lobashev, and A. P. Serebrov.* **1987, No. 2, 376 [120].**

Programmable Manipulator for Control of High-Voltage Supply of Counters of Multichannel Detector. *N. I. Belikov, V. I. In'shakov, L. E. Kulikova, A. P. Meshchanin, S. B. Nurushev, V. P. Romanov, V. V. Skvortsov, V. L. Solov'yanov, E. A. Ustinov, and N. N. Chernyavskii.* **1987, No. 4, 820 [62].**

Compact Regulated High-Voltage Supply for Photomultipliers. *M. V. Svintilov and O. E. Yakimovich.* **1987, No. 4, 916 [146].**

Active Filter for Photomultiplier Power Supply. *K. P. Kureichik, N. V. Kozlovskii, and I. Ya. Zlotnik.* **1987, No. 5, 1145 [120].**

Regulated High-Voltage Power Supply. *V. V. Kibitkin and A. M. Nekrasov.* **1988, No. 2, 389 [113].**

High-Voltage Supply for Electron-Optical System of Auger Spectrometer with Cylindrical-Mirror Analyzer. *N. E. Menabde and Yu. I. Nardaya.* **1988, No. 3, 690 [145].**

Power Supply for Photomultiplier. *G. I. Il'kanaev, N. A. Mamedrzaev, S. V. Mkrtychev, and Yu. A. Oganesyan.* **1988, No. 4, 970 [123].**

High-Power High-Voltage Regulator. *S. V. Dvinskikh and A. F. Privalov.* **1988, No. 4, 1082 [212].**

Power-MOSFET DC-Voltage Converter. *V. A. Bogdenko.* **1988, No. 6, 1517 [129].**

Programmable High-Voltage Power Supply for Photomultiplier. *S. A. Lukyanets and M. T. Tikhostup.* **1989, No. 2, 418 [144].**

Power Supply for Backward-Wave Tube. *A. B. Orudzhev and A. N. Savin.* **1989, No. 3, 638 [132].**

High-Voltage Supply for Kerr Cell. *S. Rusev and K. Bachev.* **1989, No. 3, 643 [136].**

Power Supply for Photomultiplier with High Average Anode Currents. *E. T. Alikberov, S. S. Verbitskii, and A. A. Malyutin.* **1989, No. 5, 1195 [197].**

Voltage Multipliers. *A. F. Budov.* **1989, No. 5, 1232 [228].**

VZP-5/50 High-Voltage Charging Converter. *P. G. Gordeev, V. G. Domashenko, A. A. Kalinov, S. V. Komarov, N. P. Polyakov, P. P. Rumyantsev, and Yu. P. Yarushkin.* **1990, No. 2, 356 [111].**

Converter for Storage-Capacitor Charging. *B. Z. Kurchik, A. D. Pokryvailo, and A. N. Shvarts.* **1990, No. 4, 845 [121].**

Use of Integrated Circuits of Series 1114 in Control System for High-Voltage Piezoelectric- Semiconductor Converters. *S. G. Bochkarev, D. G. Voronin, G. A. Danov, V. V. Drozhzhev, and V. N. Frolov.* **1990, No. 4, 868 [140].**

Wide-Range Regulated High-Voltage Supply. *V. S. Belkin and S. N. Morozov.* **1990, No. 4, 883 [152].**

Shaper of High-Voltage Pulses for Microchannel Plate of Image Intensifier. *N. P. Polyakov and V. A. Chikurov.* **1991, No. 2, 355 [115].**

Precision Secondary High-Voltage Power Supply. *S. V. Savinov, A. V. Stepanov, and I. V. Yaminskii.* **1991, No. 2, 373 [131].**

Economical Variable High-Voltage Supply. *E. V. Ivanov.* **1991, No. 2, 449 [197].**

7.7.4. Electromagnet power supplies

Storage-Capacitor Supplies for Pulsed Electromagnets (Review). *E. G. Furman.* **1988, No. 5, 1087 [7].**

Passive Filter for Annular Electromagnet of IHEP Accelerator. *B. V. Kaz'min, L. L. Moizhes, É. V. Polyakov, O. N. Radin, and Yu. A. Fedorov.* **1977, No. 1, 13 [17].**

Active Filter of Annular Electromagnet of IHEP Accelerator. *V. K. Vorob'ev and L. L. Moizhes.* **1977, No. 2, 365 [32].**

Adjustable Current-Supply Stabilizer for Magnetic-Lens Beta Spectrometers. *B. A Alikov, T. M. Muminov, S. I. Ormandzhiev, U. S. Salikhbaev, and R. R. Usmanov.* **1977, No. 3, 803 [170].**

Wide-Range Magnet-Current Regulator for the RE1301 Microwave Spectrometer. *B. F. Alekseev and A. I. Mamykin.* **1978, No. 1, 147 [143].**

Current Stabilizer for an Electromagnet. *R. V. Telisnin, V. N. Dudorov, V. V. Randoshkin, and V. D. Chervenkov.* **1979, No. 5, 1455 [241].**

Current Stabilizer for High-Resistance Magnets. *B. V. Gurylev, B. A. Bespalov-Korotkevich, and S. N. Kisel'nikova.* **1980, No. 1, 181 [176].**

Power System for Electromagnet in an NMR Spectrometer. *O. D. Vetrov and D. A. Moskalev.* **1980, No. 3, 715 [160].**

Magnetic Field Stabilizer for Nuclear Magnetic Resonance Pulse Spectrometers. *L. N. Erofeev, V. P. Tarasov, and B. A. Shumm.* **1981, No. 3, 709 [133].**

Current Regulator. *O. V. Andreev, A. N. Karmadonov, and N. I. Yagushkin.* **1981, No. 3, 719 [144].**

Stabilized Current Supply for Driving Superconducting Solenoids. *V. A. Marapulets, I. A. Kulik, and L. G. Oranskii.* **1981, No. 5, 1250 [143].**

Thyristor dc Current Regulator for Electromagnets. *A. I. Kaplienko and V. N. Eropkin.* **1981, No. 6, 1479 [138].**

Electromagnetic Current Stabilization in the ER-9 ESR Spectrometer. *I. M. Batyaev.* **1982, No. 2, 408 [120].**

Stabilized Current Source Providing Up to 100 A for Joint Use with a Multichannel Analyzer. *S. G. Semenchinskii.* **1982, No. 2, 410 [121].**

Economical Stabilized dc Source. *V. I. Sakhno and V. G. Tsyvinskii.* **1982, No. 2, 416 [127].**

A Precision Current Stabilizer for the Main Winding of a Cyclotron for Use in a Multicoupled Control System. *V. I. Sakhno, P. P. Teplov, and V. G. Tsyvinskii.* **1982, No. 5, 1067 [30].**

Current Source for Superconductive Solenoids. *M. G. Lazarev and A. T. Sokolov.* **1983, No. 3, 632 [130].**

Optoelectronic Field-Direction Switch for Electromagnet. *M. A. Chernikov and K. M. Golant.* **1984, No. 5, 1199 [140].**

Inductive-Pulsed Power Supply for a Betatron Magnet. *Yu. A. Otrubyannikov and A. S. Safronov.* **1984, No. 6, 1319 [22].**

Improvement of Electromagnet Power System of Microwave Spectrometer. *Yu. M. Nikolaenko.* **1986, No. 1, 171 [150].**

High-Power Voltage-to-Current Converter for Inductive Load. *V. V. Zhdanov.* **1986, No. 2, 409 [132].**

Controller for Multimodule Current Supply of Superconducting Solenoid. *E. A. Krivich, V. N. Kuz'menko, I. A. Kulik, and V. S. Prokof'ev.* **1986, No. 2, 473 [191].**

Programmable Current Supply for Inductive Load. *E. S. Gorkunov, A. V. Kadrov, and R. P. Petrav.* **1986, No. 3, 677 [157].**

General-Purpose Current Regulator for Electromagnets. *V. S. Belkin, D. D. Gruich, and S. V. Pichko.* **1987, No. 1, 159 [145].**

Current-Pulse Generator for Electromagnet of Induction Accelerator. *B. A. Baginskii, V. N. Makarevich, and M. M. Shtein.* **1987, No. 3, 512 [22].**

Device for Supply, Control, and Protection of Superconducting Magnetic Bench. *V. M. Lachinov, V. P. Savaneev, A. M. Starikov, and V. P. Filin.* **1987, No. 4, 912 [143].**

Economical Variable Current Supply. *V. B. Pyshkin, V. G. Rudychev, and V. P. Chugunov.* **1987, No. 6, 1421 [130].**

200-A Supply for Superconducting Solenoids. *E. P. Zeer, S. A. Trofimov, G. F. Lybzikov, and V. V. Men'shikov.* **1988, No. 6, 1506 [120].**

Variable Current Regulator for FL-1 Electromagnet. *A. M. Borisov and B. N. Semenov.* **1989, No. 1, 179 [159].**

Microprocessor Controller for High-Power Current Supply. *V. A. Bondar', P. V. Korovin, and A. V. Sharapov.* **1989, No. 3, 582 [82].**

7.7.5. Light-source supply circuits

Pulse Power Supplies for Injection Lasers (Survey). *V. P. D'yakonov, H. I. Gruden', S. I. Zienko, and V. Yu. Smerdov.* **1986, No. 5, 989 [7].**

Compact Pulse Generator for Pumping Semiconductor Lasers. *B. V. Galun, I. V. Kudryavtseva, and T. P. Shevkunova.* **1977, No. 3, 820 [184].**

Synchronization of the Lighting of Pumping Lamps in a Laser with Modulated Quality. *M. A. Sungurovskii and R. Z. Besedovskii.* **1978, No. 3, 769 [200].**

Device that Increases the Accuracy of Laser Supply Sources. *S. I. Kutsarov and S. I. Mitev.* **1978, No. 5, 1352 [178].**

CO_2 Laser High-Voltage Power Supply Based on a Pulsed Autotransformer. *V. V. Apollonov, A. I. Barchukov, S. I. Derzhavin, I. G. Kononov, K. N. Firsov, Yu. A. Shakir, V. A. Yamshchikov, A. V. Krivonosenko, S. S. Pel'tsman, and B. V. Semkin.* **1978, No. 6, 1602 [131].**

Continuous Regulation of Pumping Energy in Laser Power Systems. *V. V. Valyavko, B. V. Krylov, and A. A. Mozgo.* **1980, No. 5, 1274 [203].**

Radio Pulse Generator for Lasers with High-Frequency Transverse Discharge. *V. S. Mikhalevskii, G. N. Tolmachev, and V. Ya. Khasilev.* **1980, No. 5, 1279 [207].**

Powerful Metal-Vapor Pulse Laser Supply Source. *A. E. Kirilov, A. N. Soldatov, and V. F. Fedorov.* **1981, No. 4, 1000 [165].**

Gas Laser Discharge Current Stabilizer. *V. G. Gudelev, V. M. Kuznetsov, and V. M. Yasinskii.* **1981, No. 4, 1002 [167].**

Regulated Power Supply for Low-Noise Xenon Arc Lamps. *V. I. Donetskikh.* **1982, No. 1, 176 [156].**

Power Packs for Gas Lasers. *O. V. Filonin and V. V. Panin.* **1982, No. 3, 669 [143].**

Unified Supply Source for Lamps Used in Ultraviolet Spectroscopy. *R. R. Vardapetyan, S. A. Terzikyan, P. O. Vardevanvan, and G. A. Panosvan.* **1982, No. 4, 968 [170].**

Magnetothyristor Excitation-Pulse Generator for a Metal-Vapor Laser. *S. P. Dashuk and S. E. Potapov.* **1983, No. 1, 188 [155].**

A Pumping Generator for a Semiconductor Laser. *P. V. Mindra, A. I. Naidenko, A. A. Kuznetsov, and G. G. Andrievskii.* **1984, No. 2, 450 [181].**

High-Voltage Current Stabilizer for a Precision CO_2 Laser. *V. I. Gorokhov and O. S. Shan'gin.* **1984, No. 4, 996 [185].**

Stabilized Power Supply for a DNK-90 Ultraviolet Lamp. *S. V. Pribega, V. V. Stepanyuk, and Yu. A. Kolomiets.* **1984, No. 6, 1447 [135].**

A Power Supply for Spectral Lamps. *K. P. Kureichik, V. L. Makarov, and M. M. Mavlyutov.* **1985, No. 2, 468 [188].**

Compact Power Unit for Solid-State Laser and Optical Amplifier. *V. A. Tyapkin, V. N. Lysun, O. A. Bukin, S. Yu. Stolyarchuk, and A. N. Pavlov.* **1986, No. 2, 457 [176].**

Power Supply for Active Element of He-Ne/$^{127}I_2$ Laser. *P. S. Krylov.* **1986, No. 3, 714 [191].**

Current Regulator for Low-Power Xenon Arc Lamps Based on LIPS-35 Voltage Regulator. *V. I. Barchuk.* **1986, No. 4, 889 [125].**

Compact Regulated 5-kW Power Supply for Pulsed Gas Lasers. *Yu. I. Krasnikov and A. N. Malov.* **1986, No. 5, 1132 [135].**

Single-Phase Transformerless Power Supply for Pulsed Laser. *I. G. Muradov.* **1987, No. 5, 1141 [116].**

Increasing the Predischarge-voltage Stability of a Pulsed-Laser Power Supply. *M. I. Demchuk, A. K. Gilev, V. P. Mikhailov, and S. M. Dmitriev.* **1987, No. 5, 1143 [118].**

Bandpass Current Regulator for Argon-Ion Laser. *K. V. Kiryunikov and B. Ya. Yurshin.* **1987, No. 5, 1203 [167].**

Pump-Lamp Power Supply for Process Lasers. *S. D. Savov, O. E. Denchev, and N. V. Volchev.* **1988, No. 2, 392 [116].**

Current Supply for Continuous Solid-State Laser. *V. G. Gladyshev.* **1988, No. 3, 693 [148].**

Regulated Pump-Lamp Supply for Pulsed Solid-State Laser. *S. Ya. Verkhovskii, V. P. Egorov, A. G. Tolstenev, and F. A. Flat.* **1988, No. 3, 695 [149].**

Stable Economical Current Modulator for Light-Emitting Diodes. *A. G. Varenik and A. A. Zhurin.* **1988, No. 3, 699 [153].**

Multifunction Regulated Power Supply for Continuous Semiconductor Laser. *I. B. Grushev and A. V. Pavlenko.* **1988, No. 4, 1084 [213].**

Regulated Power Supply for VMF-25 Low-Voltage Hydrogen-Discharge Lamp. *V. I. Kharlamov and Yu. A. Kolomiets.* **1988, No. 5, 1347 [209].**

Power Supplies based on Thyristor Resonant Inverters for Pulsed Lasers. *G. G. Antonyan and S. O. Arakelyan.* **1988, No. 6, 1514 [127].**

Discharging Device with Keep-Alive Power Supply for Gas-Discharge Flash Lamp. *G. G. Antonyan, A. R. Simonyan, and V. S. Arakelyan.* **1990, No. 1, 121 [124].**

Transformerless High-Voltage Supply for Gas-Discharge Flash Lamp. *V. M. Romanov and I. V. Kostyukhin.* **1990, No. 1, 147 [145].**

Variable Regulated 15-kW Power Supply for Pulsed Gas Lasers. *P. G. Gordeev, A. A. Kalinov, N. P. Polyakov, P. P. Rumyantsev, V. E. Gofman, V. V. Sinenko, Yu. P. Yarushkin, and V. G. Niz'ev.* **1990, No. 1, 199 [188].**

Pump Device for Laser Diode. *E. P. Solodovnikov.* **1990, No. 2, 378 [130].**

Regulated Pump Supply for Periodically Pulsed Solid-State Laser. *E. A. Kopelovich, V. V. Bondarenko, and A. G. Razumov.* **1990, No. 3, 670 [172].**

Optical Isolation of Control Circuits in High-Voltage Laser Supplies. *V. V. Murga.* **1990, No. 3, 708 [204].**

Ignition Device and Keep-Alive Supply. *K. V. Ordin.* **1990, No. 3, 711 [206].**

Magnetic-Transistor Power Supply for Copper-Vapor Laser. *Yu. G. Gradoboev, Yu. M. Mokrushin, R. I. Okunev, L. N. Pakhomov, A. G. Petrakov, and A. L. Stepanyants.* **1990, No. 6, 1354 [118].**

Power Supply for Control of Single-Pulse Lasers. *Yu. S. Denishchik.* **1990, No. 6, 1426 [177].**

Compact Controlled Power Supply for Pulsed Solid-State Laser. *A. I. Ivanisik and V. I. Malyi.* **1991, No. 3, 709 [212].**

7.7.6. Protective devices

Effective System for the Protection of Transistor Stabilizers. *M. P. Baskov and G. G. Vorob'ev.* **1978, No. 4, 1037 [178].**

Emergency Protection for a Laser-Pump Flash-Lamp Block Fed from an Inductive Energy-Storing Unit. *É. A. Azizov and Yu. G. Gendel'.* **1979, No. 1, 211 [198].**

High-Voltage Protection for Electronic Equipment. *O. M. Nilov, G. V. Pudkova, and Yu. A. Tverdov.* **1979, No. 2, 589 [273].**

High-Speed Protection in dc Power Circuits. *V. D. Shishulin, V. A. Slobodyanyuk, A. I. Abramov, and A. P. Gnedov.* **1979, No. 6, 1606 [118].**

Protective Device of High-Voltage Sources of Accelerating Voltage. *A. I. Balabukh, A. V. Shpagin, and E. G. Livshits.* **1983, No. 3, 716 [204].**

Bipolar DC Supply with Protection Arrangement. *B. I. Chemerisov, and Yu. P. Davydov.* **1984, No. 3, 698 [160].**

Thyristor Switch for the Protection of Superconducting Magnetic Systems. *P. V. Aksenov and S. B. Pologikh.* **1985, No. 1, 139 [129].**

Electronic Protection of High-Power Rectifiers from Current Overloads. *I. Ya. Butov and A. N. Kuzyutin.* **1985, No. 1, 141 [130].**

High-Power Thyristor Rectifier with High-Speed Protection. *E. A. Kopelovich, B. Z. Movshevich, and A. G. Razumov.* **1988, No. 4, 966 [120].**

Protection of Apparatus from Voltage of Reversed Polarity. *E. P. Tyutyunnik and V. L. Pinskii.* **1988, No. 6, 1584 [184].**

Devices for High-Speed Protection from High Currents. *A. A. Novikov.* **1989, No. 1, 175 [155].**

Voltage Regulator with Short-Circuit Protection. *S. A. Kanygin.* **1991, No. 3, 592 [109].**

8. PULSE TECHNIQUES

8.1. Pulse devices

Trigger Shaper for High-Voltage Power Supplies. *Yu. V. Kuznetsov, E. V. Lazutin, I. M. Piskarev, V. P. Popov, and V. A. Krushchev.* **1977, No. 2, 476 [134].**

Pulse-Position Modulator with Rectangular Symmetric Pulses. *M. V. Avakyan and G. G. Antonyan.* **1977, No. 3, 740 [117].**

Multivibrator with Increased Thermal Stability. *V. P. Budyanov, A. I. Krivonosov, and A. V. Klopotskii.* **1977, No. 4, 1091 [154].**

Switching Devices Based on Λ Transistors. *V. O. D'yakonov and O. V. Semenova.* **1977, No. 5, 1337 [96].**

Overload Protection for Electrical Systems. *V. G. Glushchenko, I. A. Kurskov, and R. S. Semina.* **1977, No. 5, 1346 [103].**

Free-Running Multivibrator Using Complementary MOS Transistors. *L. F. Berzin and A. L. Yakimakha.* **1978, No. 1, 80 [78].**

Monostable Multivibrator. *A. M. Izmailov.* **1978, No. 1, 82 [80].**

Voltage-Pulse Limiter. *V. M. Nazarenko and V. A. Tsvetkov.* **1978, No. 6, 1546 [84].**

Highly Stable Multivibrators Based on TTL Integrated Microcircuits. *V. P. D'yakonov and P. G. Lykov.* **1979, No. 4, 1026 [141].**

Pulse Generator Based on a Lambda Transistor. *V. P. D'yakonov and O. V. Semenova.* **1979, No. 6, 1587 [100].**

Pulse Devices Based on Integrated Triggers. *G. A. Kozin.* **1980, No. 2, 413 [114].**

Pulsed Circuits Using a Controllable Analog of an Injection Field Transistor. *I. I. Obod.* **1982, No. 3, 632 [112].**

Pulse Shaper-Based on a Unijunction Transistor and Microcircuits. *G. A. Kozin.* **1982, No. 6, 1395 [76].**

Multivibrators with Unijunction Transistors. *I. I. Obod.* **1983, No. 3, 596 [96].**

Extraction of the Useful Signal by a Delay Line. *V. A. Trifonov and P. M. Tyuryukanov.* **1983, No. 3, 616 [115].**

Control-Pulse Shaper for Thyristor Converters. *B. I. Petrov.* **1983, No. 6, 1381 [118].**

Shaper-Amplifiers Implemented by GaAs Schottky-Barrier Field-Effect Power Transistors. *P. G. Adamov and V. Yu. Smerdov.* **1985, No. 5, 1112 [113].**

High-Speed Thyristor Converter for Electro-Physical Apparatus. *L. N. Lozovoi.* **1986, No. 1, 133 [116].**

Device for Selection and Amplification of Nanosecond Pulses. *V. M. Solov'ev, V. L. Evetskii, Yu. K. Voronov, and V. B. Shapoval.* **1988, No. 4, 952 [110].**

Pulse Shapers Using Ultrahigh-Speed GaAs Integrated Circuits. *V. I. Mogilin, V. Yu. Smerdov, and A. I. Khlybov.* **1990, No. 5, 1103 [122].**

8.1.1. Threshold devices, synchronization circuits

Square-Pulse Shapers Based on Monolithic Integrated Comparators. *V. P. D'yakonov and A. M. Remnev.* **1977, No. 5, 1355 [110].**

Frequency-Pulse Threshold Device. *F. G. Garipov and A. A. Babanin.* **1978, No. 2, 386 [111].**

Synchronizer with Discretely Regulated Delay. *A. N. Kozyr'kov, V. V. Pershakov, and V. S. Romanov.* **1978, No. 4, 988 [134].**

Fast Comparator with a Flip-Flop Stage. *K. N. Bakinovskii and L. S. Shchors.* **1980, No. 4, 925 [113].**

Digital Variable Bilateral Threshold Generator. *A. I. Grakov.* **1981, No. 3, 717 [142].**

A Thermally Stable Schmitt Trigger Device. *Z. L. Vintman, V. P. Dubil'er, and V. I. Kompaniets.* **1981, No. 5, 1313 [199].**

Pulse Shaper for Timing Photomultiplier Pulses. *D. Yu. Akimov and S. I. Merzlyakov.* **1982, No. 1, 167 [148].**

Linear Amplitude Selector. *M. V. Melen'.* **1982, No. 2, 373 [88].**

Programmable Clock-Pulse Generator for Studying Periodic Signals. *D. K. Piskunov, V. M. Efimenko, and V. Yu. Seleznev.* **1983, No. 6, 1378 [116].**

High-Speed Programmable Multifunction Synchronizer. *D. I. Abramovich, V. V. Butskii, A. A. Zaluzhnyi, and N. V. Naumov.* **1984, No. 4, 887 [93].**

Adaptive High-Speed Threshold-Voltage Shaper. *S. P. Neustroev, M. V. Soldatenko, A. P. Avdeev, and V. V. Bereka.* **1984, No. 4, 890 [96].**

Threshold Device Whose Actuation Level Follows Pulse Amplitude. *A. N. Egorychev and L. S. Priver.* **1984, No. 4, 892 [98].**

Synchronization Circuit for Shaping Picosecond Accelerated-Electron Pulses. *Yu. S. Pavlov, H. G. Solov'ev, and A. P. Tomikov.* **1985, No. 6, 1335 [93].**

High-Speed Center-of-Gravity Detector for Fluctuating Pulse Signals. *D. A. Efremenko, E. I. Tabachnik, and A. V. Petrushenya.* **1987, No. 1, 106 [100].**

Pulse-Locked Time-Interval Generator. *E. G. Pashuk and A. Sh. Ataev.* **1987, No. 1, 136 [124].**

Transponder for Synchronization of Optical Signals. *V. V. Apollonov, V. V. Brytkov, S. I. Zienko, S. V. Murav'ev and Yu. A. Shakir.* **1987, No. 4, 892 [125].**

Center-of-Gravity Shaper for Video Pulses. *V. P. Orlovskii, S. O. Popov, and S. K. Naukov.* **1987, No. 6, 1397 [111].**

Adaptive Two-Threshold Detector of the Time Positions of Fluctuating Signals. *D. A. Efremenko, I. A. Malevich, and E. I. Tabachnik.* **1989, No. 3, 591 [89].**

Tracking Time Discriminator. *V. D. Kosarev and L. N. Lozovoi.* **1989, No. 3, 595 [93].**

Amplitude Discriminator. *N. E. Overko and I. A. Chichibaba.* **1989, No. 3, 722 [202].**

Generator of Start-Stop Markers That Are Synchronized with RF Pulses. *M. M. Guralyuk and Yu. A. Kuzavko.* **1990, No. 2, 354 [110].**

Passive Sync-Pulse Shaper for Start of Current in Load. *V. I. Modzolevskii.* **1990, No. 5, 1106 [125].**

8.1.2. Time-setting circuits, one-shot multivibrators

Thyristor Univibrator. *B. A. Volkov and A. A, Babanin.* **1978, No. 2, 388 [113].**

Improvement of Metrological Characteristics of High-Speed Regenerative Generators with Delayed Feedback. *A. V. Gerasimov and V. A. D'yakov.* **1978, No. 2, 404 [128].**

Controlled Digital Shaper of Time Intervals. *V. I. Borodatyi.* **1978, No. 3, 662 [106].**

Pulse Expander. *G. A. Dmitriev and I. A. Antonova.* **1978, No. 3, 700 [139].**

Broadband Stable Univibrator. *V. G. Brovchenko, V. M. Nazarenko, and V. A. Tsvetkov.* **1978, No. 6, 1534 [74].**

Highly Stable Controlled Sources of Pulsed Oscillations Using a Charge-Storage Diode in the Feedback Loop. *D. A. Efremenko, I. A. Malevich, and S. I. Chubarov.* **1979, No. 1, 101 [97].**

Multifunctional Wideband Single-Shot Multivibrator. *Yu. G. Budyashov, E. Winkler, V. M. Grebenyuk, and V. G. Zinov.* **1979, No. 2, 447 [146].**

Measuring-Time Shaper for Digital Integrating Instruments. *Kh. A. Ismailov, D. I. Damirov, and L. M. Ryskin.* **1979, No. 2, 481 [175].**

High-Frequency Stabilized Pulse Generator. *L. S. Shchors and A. V. Shidlovskii.* **1980, No. 3, 674 [123].**

Monostable Multivibrator with a Wide Range of Pulse Duration Control. *E. I. Ponkratov and G. D. Fesivskii.* **1980, No. 4, 916 [104].**

Linear Pulse Expander for 10-1000-nsec Range. *V. I. Osadchii, S. N. Neustroev, and V. Ya. Bashkevich.* **1981, No. 5, 1202 [99].**

Shaper of Pulses of Stable Duration. *T. K. Ismailov, A. M. Izmailov, V. M. Gurevich, and G. P. Kazarova.* **1983, No. 1, 83 [79].**

Stable Square-Wave Generator. *L. V. Teslenko.* **1984, No. 3, 644 [115].**

Increased-Stability Shapers of Single Time Intervals. *V. P. Bakalinskii, V. D. Bichukov, and A. G. Khlon'.* **1984, No. 4, 1025 [209].**

Method for Increasing the Stability of Bridge Pulse Generators. *V. P. Bakalinskii, V. D. Bichukov, and A. G. Khlon'.* **1984, No. 6, 1425 [116].**

Power-Saving, Single-Time-Interval Generators. *V. P. Bakalinskii, V. D. Bichukov, I. G. Semenenko, and A. G. Khlon'.* **1985, No. 3, 618 [109].**

Digital Time-Interval Generator for Lasers. *A. N. Tur.* **1987, No. 3, 587 [84].**

Timer for Differential Counter. *A. A. Galitskas.* **1989, No. 1, 121 [110].**

Multichannel Timer. *B.-G. I. Kucher and V. S. Tikhov.* **1989, No. 1, 234 [206].**

ECL One-Shot Multivibrator with Fast Triggering by TTL Signal. *V. A. Chulkov.* **1990, No. 3, 578 [94].**

8.1.3. Delay devices

Wideband Discrete Delay Line. *V. I. Sazanov and N. G. Yaremenko.* **1977, No. 3, 749 [125].**

Measurement of Delay in Coaxial Cables. *D. K. Ryazanov.* **1977, No. 4, 1118 [179].**

Time-Delay Devices Based on Monolithic Integrated Comparators. *V. P. D'yakonov and A. M. Remnev.* **1977, No. 5, 1340 [99].**

Delay Device for Analog Signals. *A. G. Kan, Z. P. Karashetskii, and A. G. Nikitin.* **1977, No. 5, 1344 [102].**

Pulse-Delay Generator. *V. G. Bartenev.* **1978, No. 2, 409 [133].**

Controlled Precision Delay Line. *Yu. V. Alekseev, S. T. Latushkin, V. A. Rezvov, and L. I. Yudin.* **1978, No. 2, 411 [135].**

Printed Symmetrical Delay Line. *V. N. Vishnevskii, V. M. Nemirovskii, and G. I. Khodak.* **1978, No. 2, 414 [137].**

Variable Electrical Delay Line. *S. F. Simovskaya, V. S. Golikov, V. B. Klimushev, I. L. Shugaev, and A. G. Kochergin.* **1978, No. 3, 716 [153].**

Multichannel Noise-Stable Quantized Delay. *V. A. Fon'kin, G. G. Yakushev, and L. Ya. Polonskii.* **1979, No. 3, 739 [115].**

Device for Precise and Smoothly Adjustable Delay over a Wide Range of Nanosecond Logic Pulses. *A. G. Morozov.* **1979, No. 4, 1067 [175].**

Compact Unit for Logic Signal Delay. *S. I. Merzlyakov and Nguen Ngok Lam.* **1979, No. 5, 1309 [114].**

Programmable Nanosecond Delay. *B. Z. Movshevich.* **1980, No. 2, 435 [133].**

Device for Adjustable Delay of Analog Signals Based on MOS Transistors. *B. I. Kontorovich and M. V. Klevanskaya.* **1980, No. 3, 695 [142].**

Time Mark Generator. *V. A. Grigor'ev, V. A. Kaplin, E. F. Maklyaev, and Yu. V. Splavnik.* **1981, No. 1, 95 [93].**

A Pulse Former with Controlled Delay in the Nanosecond Range. *S. G. Basiladze and Nguen Chi Sha.* **1981, No. 2, 435 [138].**

Acoustooptical Delay Line. *A. V. Buchin, S. V. Morozov, T. N. Sergeenko, and V. I. Yakovlev.* **1981, No. 6, 1436 [99].**

Program-Controllable Device for Generation of Time Delays. *A. E. Korotynskii, A. N. Kornienko, and N. S. Mukhlygin.* **1981, No. 6, 1459 [119].**

Generator of Pulses with Program-Controlled Delay. *L. M. Smirnov, Ya. A. Kotlyar, V. I. Pepel'nyuk, and A. L. Torchin.* **1982, No. 2, 395 [107].**

Transistor Regulated Time Delay Circuit. *S. I. Romanov.* **1982, No. 4, 920 [127].**

Square-Pulse Time-Delay Device with Digital Control. *Ya. A. Kotlyar, L. M. Smirnov, A. V. Odegov, V. I. Vanin, and B. G. Efremov.* **1983, No. 3, 606 [105].**

Controllable Electronic Delay Line. *B. A. Chulkov and E. B. Fedoseev.* **1984, No. 3, 653 [123].**

Digital-Delay Unit for Laser-Control Pulses. *A. A. Iogansen, V. Yu. Pestunov, and S. G. Cheskis.* **1986, No. 3, 703 [182].**

Stable Digital Delay Line. *B. Yu. Dolgii, A. B. Eliseev, and R. Sh. Zagidullin.* **1987, No. 1, 101 [95].**

Nanosecond Digital Delay Line. *M. I. Demchuk, V. P. Kuznetsov, V. P. Mikhailov, G. A. Pribytok, and P. V. Prokoshin.* **1988, No. 3, 622 [91].**

Programmable Multipoint Delay Line. *A. G. Brusentsov, A. N. Volkov, and V. V. Layushka.* **1989, No. 1, 108 [98].**

Multichannel Time-Delay Device. *S. S. Denishchik, A. G. Medinskii, and V. L. Sarnavskii.* **1989, No. 3, 608 [105].**

Delay Generator. *V. N. V'yukhin.* **1991, No. 1, 104 [109].**

8.1.4. Electronic switches and commutators

Control Circuits Using Diode Switches. *D. Kollar, L. Kollarova, P. Luptak, V. Shtrait, and P. Khorvat.* **1977, No. 1, 125 [113].**

Integrated Circuit Analog Switch. *I. K. Krylov and V. N. Kuleshov.* **1977, No. 4, 1055 [122].**

Microcircuit Program Device for Analog Signal Switching. *S. K. Malyshev, S. P. Chekalev, and S. A. Shmulevich.* **1978, No. 1, 45 [46].**

Scheme for Strobing Pulse Signals. *V. F. Borzhkovskii, V. G. Vlasov, N. K. Mukhachev, N. G. Stervoedov, and A. I. Frolov.* **1978, No. 2, 417 [140].**

Precision Field-Effect-Transistor Gate. *Yu. I. Belov and Yu. A. Sukoro.* **1979, No. 1, 117 [112].**

High-Speed Gate for High-Frequency Signals. *M. A. Garibov, N. L. Guseinov, F. N. Kuliev, S. M. Mamedov, and A. G. Spirin.* **1979, No. 1, 119 [113].**

High-Speed Optoelectronic Gate. *V. P. Sharov.* **1979, No. 1, 121 [115].**

Method for Measuring Noise Characteristics of Analog Commutators. *A. G. Dorosh, V. A. Mokritskii, and Yu. B. Sigunov.* **1979, No. 5, 1313 [118].**

High-Current High-Voltage Nanosecond Keys Using High-Power MOS Transistors. *V. V. Bachurin and V. P. D'yakonov.* **1979, No. 5, 1330 [134].**

Superhigh-Speed Analog Switch. *O. A. Arodzero, V. A. Bodyagin, A. S. Kazakov, and I. N. Matveev.* **1980, No. 2, 433 [132].**

Switch for Controlling Electrooptical Devices. *R. E. Pyatetskii and V. B. Gurskii.* **1980, No. 5, 1208 [141].**

High-Speed Pulse Distributor. *G. P. Feofilov and S. A. Kozlov.* **1980, No. 6, 1421 [101].**

Efficient High-Voltage, High-Speed Transistor Switch. *S. S. Babich, A. V. Belov, and A. F. Babkin.* **1980, No. 6, 1425 [104].**

High-Speed Switch for hf Signals using FETs. *A. I. Lavrushev and A. N. Sobolev.* **1980, No. 6, 1427 [106].**

Digitally Controlled Fast Pulse Distributor. *K. A. Zhilkin and V. S. Kharlashin.* **1981, No. 1, 93 [91].**

A Switch Controlled by a Signal Frequency. *A. E. Bozhko, E. A. Lichkatyi, O. F. Polishchuk, and V. I. Savchenko.* **1981, No. 4, 946 [116].**

Multichannel MOSFET Analog Switch. *P. N. Telen', L. K. Zakharevich, and V. N. Vlasyuk.* **1982, No. 4, 927 [133].**

Nanosecond Push-Pull Switches Using High-Power MOS Transistors. *V. P. D'yakonov and O. A. Frolkov.* **1983, No. 2, 350 [102].**

Analog Commutator with Reed Relays. *A. P. Klimakov and V. D. Ashitkov.* **1983, No. 3, 600 [100].**

Simple Thyratron Switch for a Q Switch. *I. G. Muradov.* **1983, No. 4, 980 [215].**

Analog Commutator. *S. D. Dunaev and V. M. Shifrin.* **1984, No. 3, 675 [141].**

Controllable Contactless AC-Voltage Switches. *Yu. A. Chernykh.* **1984, No. 3, 677 [143].**

Optoelectronic Switch. *B. G. Kozlov, G. A. Epifanov, and Yu. S. Tatarchuk.* **1984, No. 3, 680 [145].**

High-Voltage Optoisolator of Increased Accuracy. *V. S. Belkin and S. A. Vibe.* **1984, No. 6, 1500 [181].**

Switches with Low Leakage Currents for Multichannel Commutator. *V. G. Brovchenko, and V. V. Shafirkin.* **1985, No. 4, 830 [89].**

High-Speed Linear Switch with Increased Load Capacity. *V. F. Grigor'ev, V. V. Danilevich, and V. G. Kvachenok.* **1985, No. 4, 834 [93].**

Multichannel Analog Commutator. *N. N. Balamatov, I. N. Ivakhnenko, and A. V. Nemitkin.* **1986, No. 1, 142 [123].**

Precision Analog Commutator. *G. A. Abramchuk and S. T. Svirin.* **1986, No. 2, 380 [105].**

Selective Electronic Switch. *Z. Kh. Azimdzhanova, O. A. Alikhodzhaev, R. R. Vil'danov, and A. N. Yakubov.* **1986, No. 3, 662 [142].**

Diode-Transistor Commutator. *R. A. Vakker and D. V. Moskalenko.* **1986, No. 5, 1078 [89].**

High-Speed Analog Commutator. *N. A. Bessonova, E. A. Meleshko, S. V. Oleinik, and Yu. Yu. Palkin.* **1988, No. 1, 103 [95].**

Nanosecond Microwave Switch with a High Attenuation Level. *A. R. Korsunov, A. M. Tishenko, and V. T. Tsarenko.* **1988, No. 5, 1187 [86].**

Suppressor of Contact-Bounce Pulses. *E. N. Bantyukov and V. G. Ershov.* **1991, No. 3, 708 [211].**

8.1.5. Sample-and-hold devices

High-Speed Voltage Sample and Hold Circuit. *Yu. D. Belonosov, V. E. Yamnyi, and E. I. Podol'nyi.* **1977, No. 4, 1051 [118].**

Multichannel Analog Memory. *N. N. Balamatov and A. A. Sotsilenkov.* **1978, No. 1, 50 [50].**

Long-Time Analog Memory. *Yu. A. Alabuzhev.* **1978, No. 1, 58 [58].**

Precision Sample and Hold Circuit. *L. A. Dubitskii and V. N. Osipov.* **1978, No. 1, 67 [67].**

Simple Linear Transmission Gate. *Yu. V. Sten'kin and V. I. Stepanov.* **1978, No. 5, 1309 [138].**

Integrated-Circuit Dynamic Memory. *R. I. Abbasov, E. M. Alekskerov, D. M. Alimardanov, M. A. Garibov, N. L. Guseinov, A. G. Dzhafarov, Sh. U. Mamedkhalilov, and A. D. Nuriev.* **1978, No. 6, 1498 [40].**

Sampling and Memory Unit Based on Integrated Microcircuits. *I. K. Krylov and V. N. Kuleshov.* **1979, No. 1, 78 [76].**

High-Speed Analog Storage Device with a Two-Step Conversion Cycle. *M. I. Demchuk and V. N. Khaiminov.* **1979, No. 3, 725 [103].**

Selection and Storage Device. *L. A. Dubitskii and V. N. Osipov.* **1979, No. 5, 1311 [116].**

Simple Analog Storage Device. *A. V. Beshkarev and I. I. Markovich.* **1979, No. 6, 1553 [70].**

Analog Storage Device with Matching to Amplitude of Input Signal. *V. G. Galalu and V. S. Pereyaslov.* **1980, No. 1, 108 [111].**

Precision Integrated Circuit Linear Switch. *V. V. Butskii, S. S. Vetokhin, and I. V. Reznikov.* **1981, No. 2, 441 [144].**

A Two-Channel Analog Storage Device for Slowly Varying Signals. *E. I. Ponkratov.* **1981, No. 3, 672 [102].**

High-Precision Voltage Storage Circuit. *V. L. Verman, V. P. Krylov, and I. I. Senechkina.* **1981, No. 5, 1236 [130].**

Analog Memory Circuit. *I. B. Mazurov and Yu. G. Sibiryak.* **1981, No. 5, 1238 [132].**

Fast Analog Storage Device. *G. V. Basalaev and A. B. Kmet'.* **1982, No. 4, 881 [94].**

High-Speed Sampling-Storage Device. *S. V. Klevtsov and M. M. Yakobson.* **1983, No. 6, 1317 [63].**

Precision Integrating Sampling-Storage Device. *V. V. Danilevich and V. G. Kvachenok.* **1983, No. 6, 1319 [65].**

Device for Storage and Logical Processing of Pulse Signals. *O. I. Andronov, V. G. Brovchenko, and A. V. Parshin.* **1983, No. 6, 1383 [119].**

Dynamic Storage Device. *D. L. Gromenko.* **1984, No. 6, 1402 [97].**

Sample-and-Hold Circuit with Enhanced Linearity. *V. S. Plekhanov, V. M. Sidorov, and V. G. Shakhtshneider.* **1985, No. 4, 828 [88].**

Sample-and-Hold Device with Long Holding Time. *Yu. A. Tuflin and A. I. Dobretsov.* **1986, No. 2, 373 [99].**

Sample-and-Hold Devices for 12-14-Bit Analog-Digital Converters. *A. A. Danilov.* **1987, No. 2, 309 [63].**

High-Speed Analog Storage Device. *N. I. Zheludkov.* **1988, No. 1, 106 [98].**

Sample-and-Hold Device of Increased Accuracy. *A. A. Danilov.* **1988, No. 2, 341 [72].**

Sample-and-Hold Device for High-Speed Processes. *P. N. Valin, A. N. Zuev, V. Yu. Kozlov, and L. L. Malygin.* **1988, No. 4, 879 [51].**

Wideband Sample-and-Hold Device for Analysis of High-Speed Processes. *V. V. Shkarupin, V. E. Donets, and N. I. Teterina.* **1991, No. 2, 341 [103].**

8.1.6. Measurement of pulsed currents and voltages

Field-Strength Meter for Pulsed Electric Fields. *É. M. Bazelyan, V. A. Brandenburgskii, and A. Z. Ponizovskii.* **1977, No. 2, 479 [137].**

Nanosecond Radio-Pulse Reflectometer. *A. V. Andrianov, E. I. Bulatov, and Yu. V. Vvedenskii.* **1977, No. 2, 484 [141].**

Apparatus for Measuring Pulse-Amplitude Instability in Accelerator Systems. *L. P. Butenko, V. V. Mel'nichenko, and A. N. Savchenko.* **1977, No. 3, 636 [26].**

Pulse-Amplitude to Digital Converter with Large Dynamic Range. *N. N. Balamatov, A. A. Sotsilenkov, and Yu. V. Nilsen.* **1977, No. 3, 697 [80].**

Device for Deriving Extrema of Pulsed Bell-Shaped Signals. *L. L. Kovalenkov and I. A. Babanov.* **1977, No. 3, 742 [118].**

Instrument with Automatic Selection of Measurement Range for Recording Waveform of Single-Sweep Signals. *S. I. Goryushkin, V. A. Obshivalov, A. A. Rostovtsev, and Yu. V. Shein.* **1977, No. 3, 745 [121].**

High-Speed Automatic Pulse Signal Standardizer. *M. V. Brunov, V. P. Golovkov, and A. I. Golyshev.* **1978, No. 2, 419 [142].**

Digital Nanosecond Time-Interval Meter for Cathode-Ray Oscillograph. *V. N. Vishnevskii and N. A. Kukharenko.* **1978, No. 2, 453 [176].**

Analog Meter for the Temporal Parameters for Random Pulsed Fluxes. *P. P. Drabich, Ya. V. Medvid', and R. F. Fedoriv.* **1978, No. 5, 1330 [158].**

Strobe-Pulse Peak Detector. *R. A. Kamiliya and G. A. Mailov.* **1978, No. 5, 1333 [160].**

Reference-Signal Block for the Measurement of Short Time Intervals between Periodic Pulsed Processes. *S. F. Pavlov and S. P. Smirnov.* **1978, No. 6, 1521 [62].**

Use of S1-21 Stroboscopic Attachment for the Registration of Nanosecond Signals with Repetition Frequencies up to 10 Hz. *L. I. Korshunov.* **1978, No. 6, 1649 [172].**

Apparatus for Difference-Method Reduction of Statistical Pulsed Fluxes with Small Instrumental Error. *D. D. Natanzon.* **1979, No. 1, 90 [87].**

Multichannel Recorder for Single Signals. *Yu. I. Belonosov and V. E. Yamnyi.* **1979, No. 1, 115 [110].**

Device for Levelling Statistically Distributed Pulses. *G. I. Il'kanaev, V. G. Iskenderov, and G. L. Melikov.* **1979, No. 4, 1010 [125].**

A Two-Channel Digitizing Recorder for Signals of Microsecond Duration. *A. N. Kasperovich, O. M. Mantush, and Yu. V. Shalaginov.* **1980, No. 1, 94 [98].**

Device for Recording Form of Repeating Pulses. *V. I. Mel'nikov and S. F. Rovnov.* **1980, No. 3, 648 [101].**

Electrooptical Method of Measuring High-Voltage Pulses. *A. N. Georgobiani, L. N. Ivanov, Yu. N. Kuzemchenko, P. A. Todua, and E. F. Shestakova.* **1981, No. 1, 181 [172].**

Registration of High-Voltage Pulses with Subnanosecond Resolution. *T. V. Loiko, S. L. El'yash, and N. I. Kalinovskaya.* **1981, No. 2, 392 [98].**

Multichannel Analyzer for Simultaneous Pulses. *A. M. Aminev, Yu. I. Kovalev, and A. L. Timofeev.* **1981, No. 3, 653 [87].**

Noise-Immune Pulse Shaper for Matching with the Input of a Multichannel Amplitude Analyzer. *A. V. Balykin, A. F. Babkin, O. G. Potapov, and A. S. Yagunov.* **1981, No. 3, 681 [109].**

Two-Channel Device for Measuring Nanosecond Pulse Amplitudes. *K. A. Murtazin, I. A. Nepogodin, and A. S. Savel'ev.* **1981, No. 6, 1417 [81].**

Automatic Range Selection Circuit for Measuring the Amplitude of Single Pulses. *G. N. Abramov and O. V. Podymov.* **1982, No. 1, 161 [142].**

Spark-Discharge Energy Meter. *S. K. Gil' and E. N. Dolgov.* **1982, No. 6, 1520 [184].**

A High-Voltage Pulse Electrooptical Bridge. *I. T. Ovchinnikov and E. V. Yanshin.* **1983, No. 1, 100 [94].**

A Pulse-Area Meter Containing an Analog Memory. *V. G. Nikolaevskii, G. M. Churikov, and V. V. Kryzhko.* **1983, No. 2, 340 [94].**

Apparatus for Measuring the Instantaneous Values of Periodic Pulsed Voltages. *A. A. Bragin, G. L. Mizyuk, and N. I. Shcherbinin.* **1983, No. 2, 342 [95].**

Device for the Automatic Selection of the Measurement Boundaries of the Amplitudes of Single Pulses. *G. N. Abramov.* **1983, No. 3, 609 [109].**

Device for Comparing Pulse Amplitudes. *V. N. Gordeev, B. N. Shpilevoi, A. N. Yuzhakov, and A. K. Yakushev.* **1983, No. 5, 1134 [122].**

Device to Analyze the Duration and Period of Pulse Sequences. *I. Z. Klimov, V. N. Tsyrkin, and A. M. Fomin.* **1983, No. 5, 1136 [125].**

Pulse-Height Meter with Anomalous-Reading Selection. *Yu. P. Grishin, K. P. Kuznetsov, R. L. Chiritso, and N. N. Baskakov.* **1984, No. 1, 152 [138].**

A Device to Detect Pulse Signals. *T. M. Dem'yanchuk.* **1984, No. 1, 239 [216].**

Nanosecond Voltage Pickup. *V. I. Zaitsev, G. M. Oleinik, and I. R. Yampol'skii.* **1984, No. 2, 369 [109].**

Device for Monitoring Pulse Amplitude. *Yu. N. Zakharov, I. I. Kovbanyuk, and A. I. Yarukhin.* **1984, No. 3, 648 [119].**

Method for Measuring Pulse Voltages. *P. M. Tyuryukanov and G. V. Khodachenko.* **1984, No. 3, 651 [121].**

Recording of Widely Spaced Random Pulses with an S8-12 Storage Oscilloscope. *Yu. I. Zakharov.* **1984, No. 6, 1400 [94].**

Television Analyzer for Oscillograms of Short Single Pulses. *E. N. Men'shov, V. A. Nikolaenko, and G. S. Tetnev.* **1984, No. 6, 1405 [99].**

Peak Voltmeter for Nanosecond Pulses. *V. P. Gubanov.* **1985, No. 2, 411 [137].**

Noise-Immune Pulse-Order Monitor with <40-psec Resolution. *Yu. G. Kataev.* **1985, No. 5, 1119 [118].**

Noise Compensation in High-Voltage Measurements. *A. S. Boriskin and V. I. Zolotovskii.* **1985, No. 5, 1140 [138].**

Single-Pulse Recorder with Microsecond Conversion Cycle. *A. D. Khil'chenko.* **1986, No. 3, 626 [108].**

Digital Meter of Time Shifts between Periodic Pulse Trains. *B. M. Porodin.* **1986, No. 3, 664 [144].**

Correlator of Periodic Exponential Pulses. *N. N. Mel'nik and A. P. Okonechnikov.* **1986, No. 5, 1060 [71].**

Digital Ratemeter Implemented by Single-Chip Microcomputer. *E. N. Vladimirov, T. P. Sareva, and L. Ya. Ebril'.* **1986, No. 5, 1063 [74].**

An Induction Sensor for Measuring the Accelerating Voltage in an Iron-Free Induction Accelerator. *N. S. Bol'nykh, Yu. M. Il'in, A. A. Kostyushok, and V. A. Suvorov.* **1986, No. 6, 1276 [37].**

Module for Delay and Recording of Nanosecond Pulses Using High-Speed Memory. *A. A. Denisenko, I. V. Kotov, A. A. Lebedev, S. A. Medved', Yu. V. Mikhailov, and A. V. Shchukin.* **1987, No. 1, 97 [92].**

Measurement of Pulse Voltage in High-Current Diode by Means of Germanium Sensors. *Ya. E. Krasik, V. M. Matvienko, and A. A. Sinebryukhov.* **1987, No. 2, 370 [115].**

Wide-Band Apparatus for Recording the Shape of Single Impulsive Signals. *A. D. Khil'chenko.* **1987, No. 3, 635 [124].**

Adaptive Pulse-Duration Meter. *D. P. Palyanitsa, A. A. Latypov, and S. A. Leshchenko.* **1987, No. 3, 640 [129].**

Independent Digital Recorder of High-Speed Processes. *R. M. Zubairov and S. B. Shcherbakov.* **1987, No. 4, 836 [75].**

Digital Video-Pulse Amplitude Meter. *D. P. Palyanitsa and A. M. Dement'ev.* **1987, No. 4, 874 [109].**

Measurement of Potential Distribution along High-Voltage Insulating Structures by Means of Sphere Gap. *P. V. Gorbunov.* **1989, No. 3, 598 [96].**

Converter of Short-Pulse Amplitude to Code. *S. V. Sorvirog.* **1989, No. 3, 610 [107].**

Converter of Nanosecond-Pulse Parameters. *A. G. Zen'kovich, P. V. Pazhitnykh, and V. A. Chudovskii.* **1991, No. 1, 124 [127].**

8.2. Pulse generators

Generator of Current Pulses with Sharp Leading Edge. *Yu. V. Makritskii.* **1977, No. 1, 130 [118].**

High-Voltage Pulse Generator. *V. I. Zametin and V. A. Zazulin.* **1977, No. 3, 711 [91].**

Wide-Range Pulse Generator Based on Logic Elements. *E. S. Gorbenko and K. S. Kokhnyuk.* **1977, No. 3, 723 [102].**

Clock-Pulse Generator for Charge-Coupled Devices. *N. I. Mishchenko, V. I. Zhizhimov, and Yu. V. Martyshevskii.* **1977, No. 3, 728 [106].**

Pulse Generator. *V. A. Rakhubovskii.* **1977, No. 3, 730 [108].**

Ultralow-Frequency Blocking Oscillator Using MOS Transistors. *L. F. Berzin and A. L. Yakimakha.* **1977, No. 4, 1092 [155].**

Infralow-Frequency Free-Running Phantastron Using MOSFETs. *L. F. Berzin and A. L. Yakimakha.* **1977, No. 4, 1095 [157].**

Ultralow PRF Pulse Generator. *I. D. Goncharenko, V. E. Korepanov, and I. A. Yatsun.* **1978, No. 1, 85 [84].**

Precision-Amplitude Pulse Generator for the Monitoring and Stabilization of a Spectrometer System. *E. V. Lazutin, Yu. V. Kuznetsov, I. M. Piskarev, V. A. Khrushchev, and V. P. Popov.* **1978, No. 3, 683 [126].**

Pulse Generator. *E. P. Maksimchuk.* **1978, No. 4, 983 [131].**

Rectangular Pulse Generator. *V. E. Baron, V. I. Kononovich, and V. S. Sosenko.* **1979, No. 2, 441 [142].**

A Pulse Generator. *M. I. Vakhrin.* **1979, No. 4, 1049 [161].**

Rectangular Voltage Pulse Generator. *L. G. Koshcheev.* **1979, No. 5, 1327 [131].**

Generator of Pulses of Nanosecond Duration and Precise Amplitude with Digital Control in Standard CAMAC. *S. G. Basiladze and Nguen Kwang Min.* **1980, No. 1, 98 [102].**

A 20-Channel Generator of High-Voltage Pulses. *P. S. Anan'in and A. P. Kashirin.* **1980, No. 1, 119 [121].**

High-Voltage Step Voltage Generator. *I. F. Kalinkevich and Yu. V. Maidl'.* **1980, No. 2, 404 [106].**

Bipolar Pulse Generator for Capacitive Spectrometer. *V. I. Gubskaya and V. M. Lomako.* **1980, No. 3, 776 [213].**

Pulse Generators with Low Supply Voltages. *E. P. Maksimchuk.* **1980, No. 4, 935 [122].**

Test Pulse Generator for Measurement of Power Transistor Time Parameters. *Z. A. Fisher, A. S. Miroshnichenko, S. N. Shepelenko, and I. I. Lemekhova.* **1980, No. 6, 1410 [91].**

Adjustable Rectangular Pulse Generator Using a Semiconductor Pentode. *I. I. Obod.* **1980, No. 6, 1413 [94].**

Stepped High-Voltage Pulse Generator. *Yu. N. Nezovibat'ko, P. A. Demchenko, and A. G. Reznichenko.* **1981, No. 1, 127 [122].**

Sawtooth-Pulse Generators Based on Semiconductor Pentodes. *I. I. Obod.* **1981, No. 1, 133 [127].**

Simulator for Video Pulse Signals with Specified Envelope Form. *B. E. Ryshchar.* **1981, No. 1, 152 [145].**

Infralow-Frequency Generators of Triangular Current Pulses. *V. I. Danilov, A. A. Popov, and V. S. Khabarov.* **1981, No. 4, 975 [142].**

Square-Wave Generator. *V. V. Govorovich and V. I. Korolev.* **1981, No. 5, 1215 [111].**

High-Speed Sawtooth Current Generator. *V. E. Pribylov.* **1981, No. 5, 1217 [113].**

Pulse Generator for the Investigation of Gunn Diode Characteristics. *Yu. V. Vvedenskii and A. A. Khrustalev.* **1981, No. 5, 1247 [141].**

Pulse Generator Using Single-Junction Transistors. *I. I. Obod.* **1982, No. 2, 378 [92].**

Pulse Generator Using Field-Effect and Bipolar Transistors. *I. I. Obod and I. V. Kutovoi.* **1982, No. 2, 379 [93].**

High-Output Impedance Current Pulse Generator. *D. V. Mashovets and M. A. Shakhov.* **1983, No. 3, 594 [94].**

Thyristor Medium-Power Square-Pulse Generator. *M. Ya. Leibov and A. A. Tobolov.* **1983, No. 6, 1375 [112].**

Pulse Generator Using a K155LN1 Integrated Circuit. *L. V. Teslenko.* **1984, No. 2, 368 [108].**

Simulation of the Transient Response in a Pulse Voltage Generator. *A. G. Ponomarenko and A. S. Surkov.* **1984, No. 3, 634 [109].**

Wide-Band Square-Pulse Generator. *Ya. P. Brandis.* **1984, No. 3, 646 [117].**

Voltage-Pulse Generator with Resistance Coupling. *M. V. Shkaruba and A. G. Borisov.* **1986, No. 2, 403 [126].**

Generator of Fast Voltage Swings Based on Semiconductor Device Controlled by Electron Beam. *K. Grigoras, Z. Dobrovol'skis, A. Krotus, and V. Yasutis.* **1988, No. 1, 137 [118].**

Generator of Current Pulses with Slow Rise and Fast Fall. *V. A. Esaulenko, E. N. Ivanov, A. I. Orlov, and E. P. Terekhov.* **1988, No. 2, 356 [85].**

Combined Voltage-Pulse Generator. *M. V. Shkaruba, A. B. Gerasimov, and V. A. Sannikov.* **1988, No. 2, 358 [87].**

High-Voltage Generator with $U = U_0/t^2$. *Yu. A. Bykovskii, A. E. Gruzinov, and V. B. Lagoda.* **1989, No. 4, 875 [125].**

Precision Generator of Stable-Amplitude Pulses. *N. A. Zhuk, Yu. G. Zdesenko, and V. N. Kuts.* **1989, No. 5, 1131 [141].**

Generator of Triangle Voltage Pulses. *D. L. Danyuk and G. V. Pil'ko.* **1990, No. 1, 109 [115].**

Digital Pulse Generator with Amplitude-Frequency-Phase Manipulation. *N. I. Borodin and I. P. Bukanov.* **1990, No. 6, 1316 [86].**

High-Voltage Pulse Generator. *E. V. Krylov.* **1991, No. 4, 859 [114].**

8.2.1. Pulse-train generators

Multichannel Random-Signal Generator. *E. Ya. Marchenko, V. I. Klenov, V. V. Isakevich, and L. T. Sushkova.* **1978, No. 1, 87 [86].**

Generator of a Pair of Subnanosecond Pulses with an Adjustable Duration and Delay. *A. S. Logginov and A. V. Semyanistyi.* **1980, No. 3, 671 [121].**

Generator of Three-Level Pseudorandom Pulse Trains with Adjustable Time Parameters. *M. V. Melen'.* **1981, No. 1, 135 [130].**

A Binary Pulse Generator Based on Integrated Circuits. *M. I. Skopyuk and V. A. Shevchenko.* **1981, No. 2, 427 [131].**

A Pseudorandom Binary Number Generator. *V. I. Popova and S. V. Tyurin.* **1981, No. 2, 429 [133].**

Random Time-Interval Generator. *V. S. Batrachenko and G. I. Nepeleva.* **1981, No. 5, 1220 [116].**

A Programmable Pulse Generator. *V. P. Zelenin, S. B. Karpov, and V. V. Yaroslavtseva.* **1982, No. 4, 869 [83].**

Ten-Channel Generator of a Train of Delayed Pulses. *A. V. Shchagin and V. V. Logvin.* **1983, No. 1, 80 [77].**

Controllable Random-Pulse Generator. *A. M. Vodovozov and V. N. Labichev.* **1983, No. 5, 1125 [115].**

A Poisson Pulse-Train Generator. *L. F. Mukhachev, V. I. Popova, and S. V. Tyurin.* **1984, No. 2, 365 [106].**

Reversing Pulse Distributor. *V. N. Gordeev, B. N. Shpilevoi, A. N. Yuzhakov, and A. K. Yakushev.* **1984, No. 3, 656 [125].**

Random Pulse Generator. *V. G. Zinov and A. V. Selikov.* **1985, No. 1, 110 [110].**

Generator of Pseudorandom Binary Sequences. *V. A. Sorokin, I. T. Rozhkov, S. A. Titov, and A. N. Filippov.* **1985, No. 3, 638 [125].**

Code Generator for Controlling High-Voltage Pulse Devices. *S. V. Ashcheulov, N. V. Egorov, and K. O. Kallistov.* **1985, No. 5, 1091 [95].**

Multipurpose Programmable Pulse Generator. *V. V. Sorochinskii.* **1985, No. 5, 1093 [96].**

Microcomputer-Controlled Two-Pulse Generator. *A. A. Boguslavskii, G. Ya. Shapiro, V. V. Pechenov, V. V. Ermilov, and G. K. Semin.* **1986, No. 1, 93 [87].**

Computer-Controlled Delayed-Pulse Generator. *S. P. Luk'yanov.* **1986, No. 1, 95 [89].**

Generator of Complex Pulse Trains. *O. V. Rudnev and V. A. Promashkov.* **1986, No. 1, 146 [127].**

Generator of Paired Nanosecond Current Pulses. *V. P. D'yakonov, V. Yu. Smerdov, P. G. Adamov, and G. T. Pak.* **1986, No. 5, 1090 [98].**

Generator of Pseudorandom Sequences with Variable Delay. *G. R. Avanesyan.* **1987, No. 4, 852 [90].**

Reversible Generator of Pseudorandom Binary Numbers. *G. I. Nepeleva and S. V. Tyurin.* **1988, No. 1, 140 [121].**

Generator of Pseudorandom Signals with Variable Delay. *V. E. Demchenko, V. T. Efremenko, and O. Ya. Kapral'.* **1988, No. 2, 366 [94].**

Programmable Pulse-Train Generator. *K. Yu. Volgin and S. V. Sokolov.* **1988, No. 4, 935 [96].**

Digital Pulse Generator with Linear Frequency Modulation. *N. I. Borodin and I. P. Bukanov.* **1988, No. 5, 1194 [91].**

Generator of Identical Time-Shifted Sequences. *G. R. Avanesyan and A. S. Seleznev.* **1989, No. 1, 114 [104].**

Pulse-Train Programmer. *N. V. Kirianaki, I. N. Les'kiv, O. Yu. Tsepak, and N. M. Shchuplyak.* **1989, No. 4, 891 [140].**

Barker-Code Generator. *A. R. Korsunov and A. M. Tishenko.* **1991, No. 4, 861 [116].**

8.2.2. Short-pulse generators

Two-Channel Nanosecond Pulse Generator. *V. Z. Lubyanyi, V. K. Kamuz, and V. E. Sul'zhik.* **1977, No. 1, 132 [120].**

Nanosecond Current Pulse Former. *M. G. Nikiforov.* **1977, No. 4, 1107 [168].**

Nanosecond Pulse Former. *V. V. Korotkevich, I. Z. Rutkovskii, and N. N. Shabel'.* **1977, No. 4, 1109 [171].**

Bipolar Nanosecond Pulse Shaper. *L. S. Vertogradov, A. V. Zhelamkov, B. A. Murav'ev, Kh. Ryuger, Kh. Tom, and G. A. Shelkov.* **1978, No. 3, 584 [31].**

Generator of Coded Series of shf Picosecond Pulses Based on Avalanche Transistors. *V. P. D'yakonov.* **1978, No. 3, 689 [131].**

Multichannel Generator of Nanosecond Pulses. *I. G. Larin, S. T. Latushkin, V. A. Rezvov, and L. I. Yudin.* **1978, No. 3, 691 [132].**

Nanosecond Pulse Shapers Based on Avalanche Transistors and Powerful shf Transistors. *V. P. D'yakonov and A. I. Profatilov.* **1978, No. 3, 693 [134].**

Simple Shaper of Nanosecond Pulses. *A. Z. Venger, A. N. Ermak, and A. M. Yakimienko.* **1978, No. 5, 1303 [134].**

Generator of Nanosecond Pulses with a High Repetition Frequency. *N. P. Volyntsev and B. V. Galun.* **1980, No. 3, 669 [120].**

Generator of Short Bipolar Pulses. *V. I. Startsev, V. A. Gol'dshtein, and É. L. Kuplennikov.* **1980, No. 5, 1181 [120].**

Nanosecond and Picosecond Pulse Generator. *A. V. Andriyanov, A. V. Goryachev, and V. V. Krylov.* **1981, No. 1, 119 [115].**

Generation of Short Periodic Voltage Pulses across a Remote High-Resistance Load. *A. N. Bryukhanov, I. G. Larin, S. T. Latushkin, Va. A. Rezvov, and L. I. Yudin.* **1981, No. 5, 1206 [104].**

Nanosecond Pulse Generator. *A. I. Fendrikov.* **1982, No. 2, 393 [106].**

Transistor Generator for Nanosecond Pulses. *O. S. Kolotov and V. A. Pogozhev.* **1982, No. 5, 1143 [94].**

Nanosecond Pulse Generator. *V. G. Mikhailov, V. A. Rezvov, and L. I. Yudin.* **1983, No. 4, 876 [122].**

Subnanosecond Current-Pulse Generator with Digital Pedestal Control. *V. P. D'yakonov, V. M. Vatutin, A. G. Kalinenko, S. V. Babin, and P. G. Vanichkin.* **1983, No. 6, 1376 [114].**

High-Power Nanosecond Pulse Shaper. *V. V. Bachurin, V. P. D'yakonov, and V. Yu. Smerdov.* **1985, No. 5, 1103 [106].**

High-Power Semiconductor Picosecond Pulse Generator. *I. V. Grekhov, V. M. Efanov, A. F. Kardo-Sysoev, and S. V. Shenderei.* **1986, No. 1, 99 [93].**

Integrated-Circuit Short-Pulse Shapers. *V. P. Bakalinskii and V. D. Bichukov.* **1986, No. 3, 657 [137].**

Subnanosecond Pulse Generators Implemented by Gallium Arsenide Field-Effect Transistors. *V. P. D'yakonov, V. Ya. Vaksenburg, and P. G. Adamov.* **1986, No. 4, 863 [103].**

Nanosecond Pulse Generator. *G. A. Bernashevskii, V. I. Voroshen', and S. A. Milovanov.* **1987, No. 2, 340 [90].**

Generator of Picosecond Solitone Pulses. *K. Veghova, J. Oravec, R. Kukuca, and J. Cerven.* **1988, No. 2, 361 [89].**

Subnanosecond-Pulse Generators using GaAs Power Field-Effect Transistors. *V. I. Mogilin and V. Yu. Smerdov.* **1989, No. 5, 1136 [146].**

Generator of Nanosecond Pulses of Variable Duration. *A. A. Khrustalev and A. B. Zuev.* **1990, No. 1, 113 [118].**

Nanosecond-Pulse Generator using High-Voltage Power Transistor. *B. G. Arnaudov, P. L. Gardev, and A. M. Isusov.* **1990, No. 3, 587 [101].**

Generators of Nanosecond-Pulse Trains Using High-Speed ECL Integrated Circuits. *M. D. Kontorov, A. A. Maksimchuk, V. I. Mogilin, and V. Yu. Smerdov.* **1990, No. 6, 1319 [89].**

Nanosecond Square-Pulse Generator. *L. P. Ivanov, V. V. Kochetkov, G. A. Nepokoichitskii, T. B. Rozanova, and K. Ya. Senatorov.* **1991, No. 3, 571 [91].**

8.2.3. Avalanche-transistor and power-MOSFET circuits

Avalanche-Transistor Pulse Generator with Reduced Supply Voltage. *V. P. D'vakonov and A. A. Sterlvagov.* **1977, No. 5, 1375 [126].**

Nanosecond Pulse Generators Based on Avalanche Transistors with Low-Voltage Power Supply. *V. P. D'yakonov.* **1978, No. 2, 401 [126].**

Nanosecond Delayed Pulse Generator Based on an Avalanche Transistor. *V. P. D'yakonov.* **1978, No. 2, 403 [127].**

Generator for Rectangular Nanosecond Pulses Using Avalanche and High-Power Transistors. *V. P. D'yakonov.* **1978, No. 3, 686 [129].**

Suppression of Oscillations when Powerful Nanosecond Pulses Are Shaped by Avalanche Transistors. *V. P. D'yakonov.* **1978, No. 5, 1299 [131].**

Low-Frequency Pulse Generators Based on Cascade Transistors. *A. A. Sterlyagov.* **1979, No. 2, 443 [144].**

Pulsed-Supply Avalanche Transistor Square Pulse Generator. *V. V. Golubkov and A. Y. Dorofeev.* **1979, No. 5, 1337 [139].**

High-Frequency Transistorized Generator of Short Pulses. *V. G. Pikulik and A. E. Piskunov.* **1979, No. 6, 1591 [103].**

High-Speed Voltage Dumping Generator Based on Avalanche Transistors. *G. G. Antonyan, M. N. Ishkhanyan, and A. V. Sinyavskii.* **1980, No. 2, 411 [113].**

Pulse Parameters of Thyristors in the Avalanche Mode. *V. P. D'yakonov, S. I. Zienko, and Yu. I. Grushenko.* **1980, No. 2, 417 [117].**

Amplifier-Pulse Shaper Using Power MOS FETs. *S. I. Zienko.* **1980, No. 2, 422 [121].**

High-Power High-Frequency MOS Transistors in Pulse Circuitry. *V. P. D'yakonov.* **1980, No. 3, 663 [115].**

Recirculators Based on High-Frequency MIS Power Transistors. *V. P. D'yakonov.* **1980, No. 4, 910 [99].**

Nanosecond Rectangular Pulse Generators Using Avalanche and MIS Transistors. *V. P. D'yakonov.* **1980, No. 4, 913 [101].**

Nanosecond Pulse Generators Based on Avalanche and MIS Transistors. *V. P. D'yakonov.* **1981, No. 1, 131 [126].**

Current Pulse Generation with Power MOS Transistors. *S. I. Zienko, M. N. Gruden', and V. Yu. Smerdov.* **1984, No. 3, 642 [114].**

Heavy-Current Nanosecond Pulse Shapers Using High-Power MOS Transistors with a Vertical Channel. *V. V. Bachurin, V. P. D'yakonov, V. Yu. Smerdov, and O. A. Frolkov.* **1984, No. 5, 1159 [105].**

8.3. Pulse shapers

Transistor Generator of Square Pulses for Image-Converter Shutter Control. *S. V. Kusurgashev.* **1977, No. 1, 137 [124].**

Waveform Shaper of Long Pulses. *L. Ya. Goncharov and T. N. Sevryukova.* **1977, No. 3, 739 [116].**

Generator of High-Power Pulses of Sawtooth Voltage. *V. A. Ivanov, V. A. Sinyavskii, A. N. Smirnov, and V. G. Chumakov.* **1977, No. 4, 1099 [161].**

Clock-Pulse Shaper and Matching Circuits for Series 186 and 190 Microcircuits with Transistor–Transistor Logic Microcircuits. *A. A. Urazov and A. V. Alekseev.* **1977, No. 4, 1114 [175].**

Pulse Shaper Using Variometers. *G. M. Kuperman, P. A. Novysh, and A. D. Pliss.* **1979, No. 1, 110 [106].**

Pulse Former with Adjustable Steepness of Linearly Changing Wavefront and Signal Amplitude. *É. M. Spiridenkov and N. A. Timofeev.* **1979, No. 4, 1065 [174].**

Two-Step Pulse Shaper. *S. I. Zienko.* **1980, No. 2, 424 [123].**

Bipolar Pulse Shaper-Amplifier. *M. V. Melen' and V. I. Shklyarskii.* **1980, No. 4, 915 [103].**

Conversion of Statistically Distributed Signals into Pulses of Stable Duration. *G. P. Tsapko, A. V. Pokrovskii, and Yu. K. Toushkanov.* **1980, No. 4, 923 [111].**

Economic Pulse Shaper. *A. F. Budov.* **1981, No. 6, 1449 [110].**

Simple Radio-Pulse Shaper. *L. V. Kolik and I. M. Raevskii.* **1981, No. 6, 1450 [111].**

Pulse Shaper with a Capacitive Load. *A. V. Sinyavskii.* **1981, No. 6, 1452 [113].**

High-Voltage Pulse Amplifier/Shaper for Controlling the Gate of an Electron-Optical Transducer. *V. I. Shamis, I. S. Serbin, V. V. Korneichuk, and I. S. Zadorozhnyi.* **1982, No. 3, 626 [107].**

Shaping of Nanosecond Pulses of Variable Duration Using Current Switches. *B. Z. Movshevich.* **1982, No. 3, 630 [110].**

Device for Flattening the Tops of High-Power Transformed Pulses. *V. V. Yashtanov and V. A. Klimov.* **1982, No. 4, 905 [114].**

Shaper for Forming Pulses Used to Control an Electrooptical Shutter. *S. I. Romanov.* **1982, No. 4, 913 [120].**

Square-Pulse Shaper. *V. S. Lysyuk, G. D. Mikhailyuk, V. D. Potapov, and N. I. Snychev.* **1982, No. 6, 1397 [78].**

Generation of Nanosecond Magnetizing Pulses Using Transistors. *O. S. Kolotov, V. A. Pogozhev, G. V. Smirnov, and Yu. V. Shvyd'ko.* **1983, No. 2, 347 [100].**

Pulse Shaper for an Electrooptic Modulator. *A. R. Krebs and A. G. Kuznetsov.* **1983, No. 3, 604 [104].**

Pulse Generator for a Solid-State Light Modulator. *V. P. D'yakonov and V. Yu. Smerdov.* **1983, No. 6, 1389 [125].**

Pulse Generator for Powering Semiconductor Light Emitters. *Z. I. Zienko, G. T. Pak, and V. Yu. Smerdov.* **1984, No. 2, 359 [100].**

Gas-Discharge Nanosecond-Pulse Shaper. *E. I. Asinovskii, V. V. Markovets, I. S. Samoilov, and A. M. Ul'yanov.* **1984, No. 5, 1168 [113].**

Nanosecond-Pulse Shaping Using Microwave Power Transistors and Lewis Transformer. *A. S. Kashintsev and O. S. Kolotov.* **1985, No. 3, 633 [121].**

Pump-Lamp Firing-Pulse Generator for Solid-State Lasers. *Yu. S. Denishchik.* **1985, No. 3, 680 [161].**

Square-Pulse Shaper for Unmatched Load. *S. I. Zienko.* **1986, No. 1, 144 [125].**

Shaper of High-Voltage Modulating Pulses of Complex Shape for Laser Control. *A. G. Akmanov, I. A. Smirnov, and A. G. Yamaletdinov.* **1986, No. 3, 646 [127].**

Shapers of Square Pulses with Durations of 20-100 μsec and Rise Times of 5-7 nsec. *O. S. Kolotov, D. I. Iorgov, and V. A. Pogozhev.* **1986, No. 3, 654 [134].**

Noise-Immune Pulse Shaper. *D. I. Malinovskii.* **1987, No. 3, 613 [107].**

Optoclectronic Pulse Shaper with Increased Load Capacity. *V. A. Matyna and I. A. Tereb.* **1987, No. 3, 614 [108].**

Reference-Pulse Shaper. *G. V. Pil'ko.* **1987, No. 4, 880 [114].**

Switching Voltage-Pulse Shaper for Capacitive Load with Variable Output. *V. B. Gurskii and R. E. Pyatetskii.* **1987, No. 6, 1391 [105].**

Control-Signal Generator for Acoustooptic Modulator. *A. V. Ermolovich and V M. Kolomiets.* **1988, No. 2, 351 [81].**

Shaper of 10-A Current Pulses with Subnanosecond Rise Times. *V. P. D'yakonov, P. G. Adamov, and A. I. Ivanov.* **1988, No. 6, 1485 [102].**

Control-Pulse Shaper for Electrooptic Modulator. *Yu. S. Denishchik and V. S. Essel'bakh.* **1988, No. 6, 1546 [154].**

Current-Pulse Shaper. *G. V. Pil'ko.* **1989, No. 1, 141 [127].**

Voltage-Pulse Generator for Control of Electrooptic Devices. *V. B. Gurskii, R. E. Pyatetskii, and A. V. Tikhonovich.* **1989, No. 2, 387 [118].**

Voltage-Pulse Shaper with Plasma Current Interrupter. *S. I. Balashov, N. S. Bol'nykh, V. P. Vyskubov, A. P. Metelev, and A. M. Chlenov.* **1989, No. 5, 1143 [152].**

Formation of High-Voltage Nanosecond Pulses by Cold-Cathode Gas-Discharge Devices. *S. I. Zienko, V. V. Brytkov, and V. N. Volkov.* **1989, No. 5, 1153 [161].**

Strobed Voltage-Pulse Generator. *V. M. Urusov and U. A. Shakirov.* **1989, No. 6, 1337 [94].**

High-Speed Threshold-Voltage Generator for Capacitive Load. *A. D. Gutenko and Yu. P. Udoev.* **1990, No. 1, 125 [127].**

Single-Pulse Shaper. *S. S. Kryuchenkov.* **1990, No. 2, 352 [109].**

8.4. High-power pulse generators

Generation of Powerful Subnanosecond Pulses (Review). *G. A. Mesyats and V. G. Shpak.* **1978, No. 6, 1457 [5].**

Powerful Current-Pulse Generator. *V. A. Ivanov, V. I. Levchenko, and V. V. Mikhnevich.* **1977, No. 3, 715 [95].**

Generator of Voltage Pulses for Transverse Discharges. *V. N. Ishchenko, V. N. Lisitsyn, and V. N. Starinskii.* **1977, No. 3, 725 [103].**

Unipolar Current-Pulse Generator. *G. A. Ivanov, V. A. Bulanov, and L. V. Svetov.* **1977, No. 5, 1373 [125].**

Generator of Packets of Powerful Bipolar Pulses with a High Duty Frequency. *V. I. Vystropov and V. K. Kuleshov.* **1978, No. 2, 396 [121].**

Current Pulse Generator. *G. L. Chakhlov.* **1978, No. 2, 398 [123].**

High-Power Generator of Millisecond Rectangular Current Pulses. *I. I. Kravtsevich, I. G. Nekrashevich, and A. V. Smirnov.* **1978, No. 5, 1282 [115].**

Generator of Pulsed Currents to Supply an Electric Shock Tube. *V. A. Zhovtyanskii and Yu. N. Levchenko.* **1978, No. 6, 1537 [76].**

Thyratron Generator of High-Power Nanosecond Pulses with Increased Efficiency. *V. A. Vizir', N. A. Lashuk, V. P. Orel, and V. P. Shcherbinin.* **1979, No. 4, 1046 [158].**

High-Power Tacitron-Based Pulsed Generator. *A. S. Aref'ev, V. F. Gnido, and B. D. Maloletkov.* **1981, No. 1, 121 [117].**

A High-Power Thyratron Generator of Nanosecond Pulses Based on a Strip Line. *V. A. Vizir', N. P. Larina, N. A. Lashuk, R. A. Meshcherov, V. S. Rybalko, and V. P. Shcherbinin.* **1981, No. 2, 416 [121].**

A Generator of Powerful Pulses of Voltage with a High Recurrence Rate. *L. G. Koshcheev.* **1981, No. 2, 424 [128].**

Generator of High-Current High-Voltage Pulses with Pulse-Top Stabilization. *V. Ya. Savkin.* **1981, No. 3, 688 [115].**

A High-Power Current Pulse Generator. *V. I. Amelichkin B. G. Kudasov, and Yu. P. Kuropatkin.* **1982, No. 4, 884 [97].**

Shaping of High-Voltage Nanosecond Pulses Using Arc-Discharge Cold-Cathode Thyratrons. *S. I. Ziyenko, S. V. Murav'yev, and V. A. Yamshchikov.* **1982, No. 5, 1140 [91].**

Low-Inductance Current Pulse Generator. *A. K. Tkachenko, V. I. Sapachev, and V. D. Kutsokon'.* **1983, No. 2, 359 [110].**

A High-Power Nanosecond Pulse Generator. *A. N. Meshkov, V. I. Shishko, and S. N. Eremin.* **1984, No. 2, 362 [103].**

High-Power High-Voltage Pulse Generator. *S. Ya. Verkhovskii, A. V. Lyulyaev, and F. A. Flat.* **1985, No. 4, 841 [100].**

Generator of 400-A 0.1-sec Current Pulses for Arc Discharge. *V. Ya. Savkin.* **1986, No. 5, 1135 [138].**

High-Power Current-Pulse Generator. *N. A. Ivannikov and S. A. Simkin.* **1987, No. 1, 121 [112].**

Voltage-Pulse Generator for Electron Gun. *S. A. Korenev, I. B. Enchevich, and M. K. Mikhov.* **1987, No. 2, 253 [13].**

High-Power Square-Pulse Generator. *B. Z. Movshevich, L. A. Belova, M. Yu. Kryl'tsov, and E. A. Shirokov.* **1987, No. 2, 333 [84].**

High-Power Nanosecond Pulse-Train Generator. *I. F. Isakov, E. I. Logachev, M. S. Opekunov, S. A. Pechenkin, G. E. Remnev, and Yu. S. Usov.* **1987, No. 3, 606 [101].**

High-Voltage Variable-Duration Pulse Generator. *T. E. Anisimova, E. V. Akkuratov, V. M. Gromovenko, Yu. P. Nikonov, and A. N. Malinin.* **1987, No. 4, 855 [93].**

High-Power Generator of Nanosecond Pulses with High Repetition Frequency. *V. N. Legkii, I. D. Mitsenko, D. D. Karimbaev, Yu. N. Odrov, and G. L. Prikhod'ko.* **1988, No. 3, 627 [96].**

Generator of High-Power Nanosecond Magnetizing Current Pulses. *D. I. Iorgov, O. S. Kolotov, and V. A. Pogozhev.* **1988, No. 4, 930 [92].**

Time Characteristics of Voltage-Pulse Generator with Gas Dischargers. *A. A. Shatanov.* **1990, No. 1, 118 [123].**

Low-Impedance Generator of High-Voltage Pulses. *S. S. Anufrik, K. F. Znosko, and A. D. Kurganskii.* **1990, No. 3, 584 [99].**

Current-Pulse Generator with Real-Time Amplitude Control for Inductive Load. *V. B. Pyshkin.* **1990, No. 4, 834 [112].**

High-Power Square-Pulse Generator. *D. V. Iremashvili, V. G. Latyshev, and S. M. Mukhametov.* **1990, No. 4, 837 [115].**

Ultrahigh-Power Microsecond-Pulse Generator. *É. S. Ermolovich, N. M. Lepekhin, and N. A. Sporykhin.* **1991, No. 1, 144 [144].**

Kilovolt Pulse Shaper for Capacitive Load. *A. Kruusing.* **1991, No. 5, 1095 [106].**

8.4.1. Magnetic and thyristor generators

Magnetic Generators of High-Power Nanosecond Pulses (Review). *A. N. Meshkov.* **1990, No. 1, 1 [23].**

Thyristor Generator of Nanosecond Current Pulses. *B. V. Galun, I. D. Mitsenko, and V. I. Govorukhin.* **1977, No. 3, 721 [100].**

Thyristor Shaper of High-Power Rectangular Nanosecond Pulses. *V. P. D'yakonov, S. I. Zienko, and Yu. I. Grushenko.* **1978, No. 4, 970 [120].**

High-Voltage Magnetic Generator of Nanosecond Pulses. *V. A. Petrov, V. A. Petrov, and U. Éberl'.* **1979, No. 1, 94 [90].**

Application of Ribbon Permalloy Cores in Nonlinear Shaping Lines. *V. A. Vizir'.* **1979, No. 2, 454 [152].**

Low-Impedance Line with Ferrite Inductance for Formation of Abrupt Drops of Electromagnetic Power. *A. I. Dubnev and I. G. Kataev.* **1979, No. 4, 1063 [172].**

High-Frequency Magnetothyristor Generator of Powerful Nanosecond Pulses. *E. A. Gromov, A. N. Meshkov, and V. I. Shishko.* **1980, No. 3, 667 [118].**

High-Power Magnetothyristor Pulse Generator. *P. G. Gordeev, N. P. Polyakov, P. P. Rumantsev, V. V. Sinenko, and Yu. P. Yarushkin.* **1980, No. 5, 1179 [117].**

Investigating a Nonlinear Multichannel Peaking Line. *V. A. Shvets.* **1980, No. 5, 1197 [132].**

A Surgeproof Wide-Pulse Former for Controlling High-Power Thyristors. *A. V. Cherkashin and A. I. Tarasenko.* **1981, No. 2, 439 [142].**

A High-Power Pulsed Thyristor Switch. *V. I. Amelichkin and B. G. Kudasov.* **1982, No. 4, 886 [98].**

Nonlinear Multichannel Pulse-Sharpening Line Containing Ferrite Rings with Nonrectangular Hysteresis Loop. *V. A. Shvets.* **1982, No. 4, 908 [116].**

Generation of High-Power Current Pulses by Means of Thyristors. *A. V. Voronin and V. M. Kuzhetsov.* **1982, No. 5, 1139 [90].**

Thyristor High-Voltage Nanosecond Pulse Shapers. *S. I. Zienko and V. V. Brytkov.* **1983, No. 2, 344 [97].**

High-Power Magnetic-Thyristor Generator with a High Pulse-Repetition Frequency. *L. M. Anan'ev, P. G. Gordeev, A. A. Kalinov, N. P. Polyakov, P. P. Rumyantsev, V. V. Sinenko, and Yu. P. Yarushkin.* **1984, No. 1, 141 [127].**

Thyristor High-Voltage Nanosecond Pulse Shapers. *S. I. Zienko.* **1984, No. 3, 624 [100].**

Application of Compression Sections and Nonlinear Shaping Circuits in the Modulator of a Linear Induction Accelerator. *G. V. Dolbilov, A. K. Krasnykh, and V. N. Razuvakin.* **1984, No. 4, 808 [26].**

Resonance-Switching Overvoltages in a Magnetothyristor Generator. *S. P. Dashuk.* **1984, No. 4, 903 [107].**

Nanosecond Pulse Shapers with Power Summing of Thyristor Switches. *S. I. Zienko.* **1984, No. 5, 1162 [107].**

Magnetothyristor Shaper of Nanosecond Pulses of >100 MW. *V. A. Vazhdaev and I. G. Kataev.* **1986, No. 3, 648 [129].**

Controller for Pulse-Generator Thyristors. *Yu. A. Otrubyannikov, A. S. Safronov, L. E. Steptsyura, and A. P. Nazarov.* **1986, No. 6, 1381 [128].**

Input Section of Magnetic Pulse Generator with Inductive Storage Device. *V. A. Vazhdaev, I. G. Kataev, and A. I. Kononov.* **1987, No. 4, 868 [104].**

Amplification of Pulse Power in Nonlinear Ferromagnetic Lines. *A. A. Fateev.* **1988, No. 1, 109 [101].**

Thyristor Current-Pulse Generator for Betatron Electromagnet with Independent Low-Voltage Supply. *B. A. Baginskii, V. N. Makarevich, and M. M. Shtein.* **1988, No. 4, 832 [16].**

Thyristor Pulse Generator with Cores of Amorphous Alloy. *R. I. Okunev, L. N. Pakhomov, A. G. Petrakov, V. Yu. Petrun'kin, and A. L. Stepanyants.* **1988, No. 4, 932 [94].**

Nanosecond Thyristor Traveling-Wave Generator. *B. V. Galun, V. N. Legkii, I. D. Mitsenko, and A. S. Kuznetsov.* **1990, No. 1, 116 [121].**

Magnetothyristor Pulse Generator. *N. G. Shubkin, S. P. Sychev, and V. A. Vizir'.* **1990, No. 3, 581 [96].**

Nanosecond-Pulse Generator with Summation of Powers of Thyristor Relaxation Oscillators. *S. I. Zienko and A. A. Viskushenko.* **1990, No. 4, 840 [118].**

High-Power High-Frequency Thyristor Magnetic Pulse Generator. *P. G. Gordeev, A. V. Kalinov, N. P. Polyakov, V. V. Sinenko, P. P. Rumyantsev, and Yu. P. Yarushkin.* **1990, No. 5, 1100 [119].**

Two-Channel Generator of High-Voltage Nanosecond Pulses. *Yu. A. Mansurov and M. A. Greshnov.* **1991, No. 2, 352 [113].**

8.4.2. Generators with diode shaping

Transistor-Diode Voltage Drop Formers with Pulse Front Duration Approximately 0.2 nsec. *Ch. I. Pavasaris and V. I. Zhalkauskas.* **1979, No. 5, 1333 [137].**

Picosecond Pulse Shaper Using a Gunn Diode. *G. I. Aizenshtat and V. N. Dontsov.* **1980, No. 4, 921 [109].**

High-Power Subnanosecond Semiconductor Pulse Peakers. *I. V. Grekhov, A. F. Kardo-Sysoev, and S. V. Shenderei.* **1981, No. 4, 967 [135].**

Generation of High-Voltage Nanosecond Pulses by Forward-Biased Semiconductor Diodes. *S. I. Zienko, V. V. Brytkov, and A. B. Vlasov.* **1983, No. 4, 873 [120].**

Shaping High-Voltage Nanosecond Voltage Drops with Serial Semiconductor Diodes with a Drift Voltage-Recovery Mechanism. *S. I. Zienko.* **1984, No. 4, 894 [100].**

High-Power Drift Peakers with Nanosecond Recovery Time. *I. V. Grekhov, V. M. Efanov, A. F. Kardo-Sysoev, and S. V. Shenderei.* **1984, No. 5, 1157 [103].**

Powerful Square-Wave Pulse Generator with Subnanosecond Rise and Fall Times. *V. N. Legkii, D. D. Karimbaev, G. L. Prikhod'ko, and D. A. Soskin.* **1984, No. 6, 1421 [113].**

Shaper for High-Voltage Subnanosecond Voltage Jumps by Means of Semiconductor Diodes with Avalanche-Breakdown Delay. *S. I. Zienko.* **1985, No. 1, 114 [113].**

Pulse Shapers with Diode Peaking and a Drift Mechanism of Voltage Recovery. *S. I. Zienko.* **1986, No. 3, 652 [132].**

Generation of Nanosecond Kilovolt Gradients by Past-Recovery Drift Diodes. *V. M. Efanov, A. F. Kardo-Sysoev, and S. V. Shenderei.* **1986, No. 4, 862 [101].**

Use of Semiconductor Diodes with Ohmic Relaxation for Clipping of High-Voltage Swings. *S. I. Zienko.* **1986, No. 6, 1367 [116].**

Semiconductor Generators of Kilovolt Nanosecond Pulses. *V. I. Brylevskii, I. V. Grekhov, V. M. Efanov, A. F. Kardo-Sysoev, and S. V. Shenderei.* **1988, No. 1, 116 [106].**

Use of Diode with S-Shaped Volt-Ampere Characteristic for Shaping of Nanosecond Pulses. *V. V. Ludikov, V. K. Chevokin, A. M. Prokhorov, O. P. Tolbanov, and S. S. Khludkov.* **1990, No. 6, 1332 [100].**

Square-Pulse Shaping by Reverse-Connected Semiconductor Diodes. *S. I. Zienko, V. V. Brytkov, and I. R. Shpakov.* **1991, No. 5, 1098 [108].**

8.4.3. Pulse modulators

Pulse Modulators with Increased Pulse Repetition Rate. *T. E. Anisimova, V. F. Borisov, D. A. Goryachkin, V. M. Gromovenko, V. M. Irtuganov, V. P. Kalinin, Yu. P. Nikonov, and O. I. Pashkov.* **1977, No. 3, 732 [109].**

High-Power Long-Pulse Thyratron Modulator with Small Off-Duty Factor. *G. G. Gontarev.* **1977, No. 4, 1097 [159].**

Thyristor Pulse Modulator for 8-mm-Waveband Klystron. *A. A. Antipin and A. A. Fedii.* **1978, No. 1, 78 [77].**

High-Voltage Pulsed Modulator of Strong-Current Electron Accelerator. *O. A. Gusev, V. B. Markov, E. M. Mellekh, A. S. Perlin, O. P. Pecherskii, M. Yu. Polyanskii, and G. A. Spitsyn.* **1978, No. 5, 1186 [32].**

Generator of Pulses for Magnetron Modulation in the Centimeter Band. *A. V. Barmin, I. G. Kataev, and I. I. Rozhkov.* **1978, No. 5, 1284 [117].**

Adjustable Shaper of Modulating Voltage Pulses. *V. V. Arsen'ev, V. D. Letnikov, I. N. Matveev, Yu. V. Prichko, and A. N. Stepanov.* **1979, No. 1, 108 [103].**

High-Voltage Pulse Modulator of INUS-2 High-Current Electron Accelerator. *O. A. Gusev, V. G. Kovalev, V. B. Markov, E. M. Mellekh, E. P. Pavlov, O. P. Pecherskii, M. Yu. Polyanskii, and B. A. Stekol'nikov.* **1981, No. 5, 1122 [27].**

Pulse Modulator. *V. L. Auslender, R. M. Lapik, N. D. Taralenko, and A. A. Tubik.* **1982, No. 2, 391 [103].**

Compact Pulse Modulator. *V. S. Panasyuk, Yu. K. Samoshenkov, and M. F. Simanovskii.* **1982, No. 4, 918 [124].**

Magnetic Thyristor Pulse Modulator. *É. S. Ermolovich, N. M. Lepekhin, and E. E. Semenova.* **1983, No. 4, 885 [130].**

High-Power Vacuum-Tube Modulator with Pulse-Width Control. *V. S. Manoilo, N. V. Kulik, V. I. Tereshin, V. V. Chebotarev, B. A. Lishenko, B. A. Shevchuk, and V. I. Voznyi.* **1983, No. 5, 1123 [113].**

Thyristor Modulator of Square Megawatt Current Pulses. *É. S. Ermolovich, and N. M. Lepekhin.* **1984, No. 1, 150 [136].**

A Small-Size Pulse Modulator. *V. S. Panasyuk, Yu. K. Samoshenkov, and M. F. Simanovskii.* **1984, No. 5, 1057 [17].**

High-Power Pulse Modulator with Ignitron Discharger. *T. E. Anisimova, E. V. Akkurator, V. A. Artemov, V. M. Gromovenko, V. P. Kalinin, and V. P. Nikonov.* **1985, No. 2, 415 [140].**

High-Power Precision Pulse Modulator with Variometer Artificial Line. *M. A. Gladkikh, A. M. Dolgov, V. P. Krivchikov, G. M. Kuperman, and A. D. Pliss.* **1985, No. 3, 630 [119].**

Amplifier-Shaper for High-Power Radio-Frequency Pulses. *O. Ya. Shmelev.* **1986, No. 2, 401 [124].**

Modulator for LUEK-20 Linear Induction Electron-Ion Ring Accelerator. *G. V. Dolbilov, V. I. Kazacha, V. P. Sarantsev, and A. I. Sidorov.* **1987, No. 5, 1052 [38].**

Simple Pulse Modulator. *V. G. Shironosov and S. V. Kuz'min.* **1988, No. 2, 490 [192].**

High-Speed Protection for Thyristor Controller in Supply System of High-Power Linear Modulator. *S. A. Vitsinskii, A. V. Keller, E. I. Kudrina, and R. A. Tukhvatullin.* **1988, No. 3, 708 [160].**

High-Power Microsecond Modulator using Reverse-Connected Dynistors. *V. P. Goncharenko, I. V. Grekhov, S. V. Korotkov, and N. S. Yakovchuk.* **1989, No. 5, 1146 [155].**

Nanosecond Pulse Modulator with Frequency to 250 kHz in Packet Mode. *A. N. Meshkov, Yu. S. Pavlov, V. I. Shishko, A. F. Skvortsov, V. N. Luk'yanov, and V. V. Dobrokhotov.* **1989, No. 5, 1150 [158].**

Nanosecond Magnetic Modulators for Electron Source of Linear Accelerator. *A. N. Meshkov, A. F. Skvortsov, V. I. Shishko, and S. N. Eremin.* **1990, No. 3, 589 [103].**

High-Power Pulse Modulator with Shielded-Variometer Shaping Line. *S. P. Aristarkhov, A. V. Muratov, Yu. V. Solov'ev, A. S. Toropov, L. P. Fomin, and V. E. Ermel'.* **1990, No. 3, 592 [105].**

High-Voltage Modulator with Electrical Isolation from Ground. *A. R. Korsunov and A. M. Tishenko.* **1990, No. 5, 1135 [152].**

8.4.4. Generators for laser supply

Pulse Power Supplies for Injection Lasers (Survey). *V. P. D'yakonov, H. I. Gruden', S. I. Zienko, and V. Yu. Smerdov.* **1986, No. 5, 989 [7].**

Excitation Generator for Semiconductor Injection Lasers. *A. A. Matsveiko and A. B. Sergeev.* **1977, No. 2, 468 [127].**

Thyristor Generator with Automatic Regulation of Current Pulse Amplitude for Pumping Semiconductor Lasers. *B. V. Galun.* **1977, No. 3, 719 [98].**

Compact Pulse Generator for Pumping Semiconductor Lasers. *B. V. Galun, I. V. Kudryavtseva, and T. P. Shevkunova.* **1977, No. 3, 820 [184].**

Semiconducting Shaper of Ignition Pulses for Laser-Pumping Lamps. *R. Z. Besedovskii, K. A. Kondrat'ev, M. A. Sungurovskii, and V. I. Shchupak.* **1978, No. 3, 698 [138].**

Pulse Generator to Supply Acoustooptical Shutters. *A. A. Prishutov and V. E. Terent'ev.* **1979, No. 1, 98 [94].**

A Generator of Current Pulses of Adjustable Shape and Duration for Supplying Gas-Discharge Tubes. *S. A. Vitsinskii, V. I. Kulakov, and V. M. Opre.* **1980, No. 1, 121 [123].**

Thyristor Pumping Current Pulse Generator for a Semiconductor Laser. *V. V. Belyaev, I. M. Divil'kovskii, Yu. N. Kal'chenko, and A. A. Matsveiko.* **1980, No. 5, 1200 [135].**

High-Frequency Pulse Generator for a Liquid Acoustooptic Shutter. *A. A. Prishutov and V. E. Terent'ev.* **1981, No. 1, 140 [134].**

A Generator of Pulses for Energizing a Laser Based on Copper Vapors. *O. G. Bespalov, S. T. Latushkin, A. I. Nastyukha, and L. I. Yudin.* **1981, No. 2, 422 [126].**

Thyratron-Thyristor Pulse Generator for a Metal-Vapor Laser. *S. P. Dashuk and S. E. Potapov.* **1982, No. 6, 1476 [145].**

High-Power Nanosecond Pulse Generator for Copper Vapor Lasers. *M. L. Muchnik, G. D. Parshin, and E. Ya. Chernyak.* **1983, No. 3, 592 [93].**

Semiconductor Laser Diode Modulator Triggered by Logical Integrated Circuits. *V. I. D'yakonov, A. G. Kalinenko, V. M. Vatutin, M. D. Kontorov, and S. V. Babin.* **1983, No. 3, 602 [102].**

Nanosecond Current Pulse Generator for Pumping Semiconductor Lasers. *V. N. Legkii, I. D. Mitsenko, G. L. Prikhod'ko, and D. D. Karimbaev.* **1983, No. 6, 1411 [145].**

A Pumping Generator for a Semiconductor Laser. *P. V. Mindra, A. I. Naidenko, A. A. Kuznetsov, and G. G. Andrievskii.* **1984, No. 2, 450 [181].**

S-Diode Nanosecond Pulse Generator for Modulation of Semiconductor Generators. *Yu. V. Vvedenskii, A. B. Zuev, D. D. Karimbaev, G. L. Prikhod'ko, and A. A. Khrustalev.* **1985, No. 3, 635 [123].**

Pulsed Power Supply for Semiconductor Laser Array Using MOS Power Switching Transistors. *V. P. D'yakonov and V. Yu. Smerdov.* **1985, No. 4, 843 [102].**

Pulsed Current Supply for IMPATT Diodes. *V. I. Orlov, V. Yu. Smerdov, and Yu. V. Fomin.* **1985, No. 5, 1142 [139].**

Current-Pulse Generator for Synchronous Supply of Flash Lamps. *G. M. Koliushko, V. V. Konotop, E. A. Shelekhov, E. V. Platonova, G. L. Mezhibovskii, and Z. A. Voronina.* **1986, No. 1, 108 [100].**

Two-Stage Pulse Generator for Copper-Vapor Laser. *A. K. Saakyan and A. V. Papoyan.* **1986, No. 1, 110 [102].**

Vacuum-Tube Modulator for Q-Switching in Solid-State Lasers. *N. I. Gerasimenko, A. F. Lomzin, N. V. Pletnev, and A. V. Chernetskii.* **1986, No. 2, 459 [178].**

Thyristor Voltage-Pulse Generator for Control of Electrooptic Shutter. *V. A. Tyapkin.* **1988, No. 3, 701 [154].**

Pulse Generator for Semiconductor Light Emitters. *V. F. Ryzhov, V. I. Ryabinin, and A. A. Chumakov.* **1988, No. 3, 813 [245].**

Pump Generators for Self-Maintained Space Discharge in CO_2:N_2:He Gas Mixtures with Large Interelectrode Distances. *V. V. Apollonov, G. G. Baitsur, B. B. Kudabaev, V. R. Minenkov, A. M. Prokhorov, B. V. Semkin, K. N. Firsov, and B. G. Shubin.* **1989, No. 1, 149 [134].**

Nanosecond Pulse Generator for Modulation of Semiconductor Lasers. *A. N. Sidnev.* **1989, No. 3, 615 [112].**

Thyratron Magnetic Pulse Generator for Pumping of Electric-Discharge Excimer Laser. *V. A. Vizir', S. P. Sychev, and V. V. Chervyakov.* **1989, No. 4, 871 [122].**

Pump Generator for Injection Lasers. *M. V. Komar, N. L. Lisovskii, G. T. Stabrovskii, and A. A. Shamet'ko.* **1989, No. 5, 1134 [144].**

Pump Device for Laser Diode. *E. P. Solodovnikov.* **1990, No. 2, 378 [130].**

Digital-Analog Generator of High-Voltages for Control of Electrooptic Shutter of Solid-State Laser. *M. G. Santimirov, R. Z. Satuchin, I. A. Smirnov, and A. G. Yamaletdinov.* **1990, No. 3, 603 [115].**

Variable Pump-Pulse Shaper for Semiconductor Laser. *O. I. Velikanova, P. V. Mindra, and A. I. Naidenko.* **1990, No. 6, 1331 [99].**

High-Voltage Pulse Generator for Electron-Beam Pumping of Excimer Laser. *V. M. Borisov, K. A. Kuryapin, E. M. Rybin, and O. B. Khristoforov.* **1991, No. 2, 363 [122].**

Pump-Pulse Generator for High-Power Excimer Discharge Laser. *V. A. Vizir', Yu. B. Kiryukhin, V. I. Manylov, S. P. Nosenko, S. P. Sychev, V. V. Chervyakov, and N. G. Shubkin.* **1991, No. 4, 913 [160].**

8.4.5. High-voltage-pulse generators

Powerful High-Voltage Nanosecond Pulse Generator. *A. A. Avdienko, A. F. Bulushev, B. I. Grishanov, and Yu. G. Matveev.* **1977, No. 2, 470 [129].**

Generators of High-Voltage Nanosecond Pulses of Complex Shape. *G. P. Bazhenov, V. I. Manylov, V. G. Shpak, and S. M. Chesnokov.* **1978, No. 2, 392 [117].**

Model of a Bipolar Voltage-Pulse Generator. *A. S. Vertogradov, A. V. Zhelamkov, Kh. Ryuger, and G. A. Shelkov.* **1978, No. 3, 579 [27].**

High-Voltage Pulse Generator with Rise Time <10 nsec. *V. B. Lebedev and G. A. Pryanikova.* **1978, No. 4, 969 [119].**

Spiral Generator of High-Voltage Pulses. *G. V. Naimark and A. A. Perunov.* **1978, No. 5, 1286 [119].**

High-Voltage Pulsed Generator with Protecting Solenoid. *V. D. Volodin, N. S. Glagoleva, N. I. Kaminskii, A. T. Matyushin, and V. T. Matyushin.* **1978, No. 5, 1289 [121].**

High-Voltage Pulse Front Correction with the Aid of Electrically Exploded Conductors. *E. I. Azarkevich, N. I. Zaitsev, and Yu. A. Kotov.* **1979, No. 1, 105 [101].**

Compact High-Voltage Pulse Generator with Pulse Transformer. *S. B. Evlampiev, Yu. F. Sviridov, and V. V. Khmyrov.* **1979, No. 2, 431 [133].**

High-Voltage Pulsed Strong-Current Apparatus with High Operating Frequency. *G. S. Korshunov, Yu. A. Krasnyatov, V. V. Ustyuzhin, and V. V. Khmyrov.* **1979, No. 2, 436 [137].**

Correction of the Pulse Shape of an Arkad'ev–Marks Voltage Generator. *E. A. Abramyan, E. N. Efimov, and G. D. Ruleshov.* **1979, No. 4, 1060 [170].**

Generator of High-Voltage Rectangular Pulses. *M. U. Bulatov, B. K. Toropov, V. G. Filippov, and E. N. Chernov.* **1979, No. 6, 1589 [101].**

A Low-Inductance Generator of Pulsed Voltage at 1 MV. *G. I. Koba, Yu. V. Koba, I. N. Slivkov, A. D. Sukhov, and É. Z. Tarumov.* **1980, No. 1, 115 [117].**

High-Power High-Voltage Pulses Generator for an Electron Accelerator. *L. A. Zubkov, A. M. Maine, V. A. Papadichev, and S. G. Rott.* **1980, No. 6, 1407 [88].**

250-kV Pulse Generator for Electrical-Pulse Technology. *V. I. Kurets.* **1981, No. 1, 123 [119].**

High-Voltage Square-Pulse Generator with Enhanced Pulse-Top Stability. *V. G. Filippov.* **1981, No. 1, 125 [120].**

Cable Generator of High-Voltage Pulses. *E. D. Korop.* **1981, No. 1, 129 [124].**

A High-Voltage Pulse Generator with an Extended Zone of Stable Operation. *A. P. Komarov, Yu. P. Pichugin, and I. N. Romanenko.* **1981, No. 2, 419 [124].**

High-Voltage Pulse Generator for a Low-Resistance Load. *A. Yu. Ushakov.* **1981, No. 4, 962 [131].**

An Arkad'ev-Marks Generator Producing Nearly Square Voltage Pulses. *V. V. Kremnev, L. I. Luchinskaya, V. I. Manylov, and V. N. Shendrik.* **1981, No. 5, 1209 [106].**

High-Power Generator of Voltage Pulses with High Operating Stability. *A. N. Bastrikov, B. M. Koval'chuk, V. A. Kokshenev, V. V. Kremnev, V. I. Manylov, and A. A. Novikov.* **1981, No. 6, 1438 [101].**

SNOP-1 High-Power Nanosecond Pulse Generator. *R. B. Baksht, A. F. Korostelev, N. K. Kapishnikov, A. V. Luchinskii, V. M. Muratov, and V. K. Petin.* **1982, No. 1, 163 [144].**

Multichannel Generator of High-Voltage Nanosecond Pulses. *V. V. Matveev, V. V. Prut, P. A. Suslov, and S. A. Shibaev.* **1982, No. 3, 607 [90].**

Multichannel Generator of High-Voltage Pulses. *V. G. Bezuglov, I. V. Galakhov, A. S. Gasheev, V. I. Ivanov, Yu. P. Kuz'michev, A. I. Kucherov, A. F. Maslov, and V. M. Murugov.* **1982, No. 3, 609 [92].**

Low-Inductance Voltage Pulse Generators. *I. R. Pekar' and V. A. Bocharov.* **1982, No. 3, 635 [115].**

High-Speed, High-Voltage Pulse Generator. *Yu. A. Kotov and V. P. Kuznetsov.* **1982, No. 4, 889 [101].**

Determination of the Characteristics of Arkad'ev-Marx Generators Using Full-Scale Models. *V. F. Bukharov, A. I. Gerasimov V. V. Mamontov, and A. S. Fedotkin.* **1982, No. 4, 892 [104].**

High-Voltage Pulse Generator. *A. V. Krivonosenko and B. V. Semkin.* **1982, No. 6, 1391 [73].**

Shape Correction of High-Voltage Pulses by Means of an Inductance and Current Interrupter. *E. I. Azarkevich, Yu. A. Kotov, and V. P. Kuznetsov.* **1982, No. 6, 1399 [79].**

Voltage Pulse Generator with Irreversible Stage Recharging and Automatic Gap Switching. *M. I. Kozlov, V. L. Gershenkroi, V. I. Goshurenko, N. I. Gordienko, and V. A. Dzhunov.* **1983, No. 2, 357 [109].**

Miniature Voltage Pulse Generator for Subnanosecond Electron Accelerators. *K. A. Zheltov, A. V. Malygin, M. G. Plichkin, and V. F. Shalimanov.* **1983, No. 3, 589 [90].**

Arkad'ev-Marx Generator with Resistive Couplings. *M. V. Shkaruba and B. B. Lipin.* **1983, No. 4, 867 [116].**

High-Voltage Pulse Generator with an Extended Charging-Voltage Range. *I. B. Kovsh, I. A. Lesnov, V. N. Paisov, and V. A. Sobolev.* **1983, No. 4, 870 [118].**

Arkad'ev-Marks Voltage-Pulse Generator with Rectifier Elements. *M. I. Koslov, V. A. Dzhunov, V. L. Gershenkroi, V. I. Goshurenko, and N. I. Gordienko.* **1984, No. 3, 619 [96].**

High-Current Low-Inductance High-Voltage Pulse Generators. *B. V. Kogan, Yu. P. Pichugin, I. N. Romanenko, V. M. Tyukov, and P. P. Shirokov.* **1984, No. 3, 621 [97].**

Compact High-Voltage Pulse Supply. *V. V. Larin and M. M. Shtein.* **1984, No. 3, 630 [105].**

Generator of High-Voltage Nanosecond Pulses for Firing High-Voltage Discharge Gaps. *I. Ts. Ivanov and A. I. Trifonov.* **1984, No. 3, 641 [113].**

Two-Polarity High-Voltage Pulse Generator. *M. I. Kozlov, V. A. Dzhunov, V. L. Gershenkroi, V. I. Goshurenko, and N. I. Gordienko.* **1984, No. 4, 898 [103].**

High-Frequency High-Voltage Pulse Generator. *N. K. Kapishnikov, V. M. Muratov, and V. S. Potapov.* **1984, No. 5, 1151 [98].**

High-Voltage Square-Pulse Generator. *A. A. Altukhov, E. A. Gusev, and I. V. Egorov.* **1984, No. 5, 1154 [100].**

High-Voltage Nanosecond-Pulse Generator with Electromechanical Commutator. *V. E. Kalyuzhnyi, A. S. Surkov, and V. K. Shilov.* **1984, No. 5, 1155 [101].**

A 16-MV Voltage Pulse Generator. *M. I. Grabchenko, V. V. Konotop, G. F. Neskorodov, I. R. Pekar', and S. M. Fertik.* **1984, No. 6, 1418 [110].**

High-Voltage Pulse Generator with a Triggering Frequency of up to 100 Pulses per Second. *N. K. Kapishnikov.* **1984, No. 6, 1423 [114].**

Bipolar Generator of Voltage Pulses of Amplitude ±600 kV. *A. V. Bannikov, L. S. Vertogradov, A. K. Dzhavrishvili, T. A. Lomtadze, A. I. Kharchilava, and G. A. Shelkov.* **1985, No. 2, 300 [36].**

Arkad'ev-Marx Generator with Capacitive Coupling. *M. V. Shkaruba, A. B. Gerasimov, and M. S. Khorunzhii.* **1985, No. 3, 625 [115].**

Snop-2 Megaampere Current-Pulse Generator. *A. S. El'chaninov, F. Ya. Zagulov, B. M. Koval'chuk, N. F. Kovsharov, V. A. Lavrinovich, A. V. Luchinskii, G. A. Mesyats, Yu. F. Potalitsyn, S. A. Sorokin, and V. F. Fedushchak.* **1985, No. 4, 838 [97].**

High-Voltage Frequency-Pulse Generator with Inductive Energy Storage. *I. M. Gavrilov, I. N. Grigor'ev, and E. S. Ermolovich.* **1985, No. 5, 1095 [99].**

Multichannel High-Voltage Nanosecond Pulse Generator. *N. K. Kapishnikov.* **1985, No. 5, 1099 [102].**

Parallel Connection of High-Voltage Voltage-Pulse and Current-Pulse Generators. *L. A. Gel'fond and B. V. Semkin.* **1985, No. 5, 1101 [104].**

Semiconductor High-Voltage Pulse Generator with Capacitive Load. *A. F. Kardo-Sysoev and I. G. Chashnikov.* **1986, No. 1, 101 [95].**

High-Voltage Short-Fall Pulse Generator. *G. V. Dolbilov, V. A. Petrov, and A. A. Fateev.* **1986, No. 1, 105 [98].**

Generator of High-Voltage Pulses with Uniform Tops. *B. Z. Movshevich and M. Yu. Kryl'tsov.* **1986, No. 2, 405 [128].**

High-Voltage Generator of Variable Nanosecond Pulses for Study of Explosive Electron Emission. *B. I. Grishanov, L. A. Shirochin, G. N. Pursei, S. M. Lupekhin, M. A. Polyakov, and V. M. Zhukov.* **1986, No. 4, 851 [91].**

Generator of High-Voltage Nanosecond Pulse Packets. *N. K. Kapishnikov.* **1986, No. 4, 854 [94].**

Generation of Microsecond Square High-Voltage Pulses for High-Current Accelerators. *L. N. Kazanskii and V. I. Engel'ko.* **1986, No. 5, 1082 [92].**

High-Power Nanosecond Pulse Generator. *N. K. Kapishnikov, G. V. Lipov, and V. M. Muratov.* **1986, No. 5, 1092 [100].**

High-Voltage Impulse Generator with a Dielectric Ultraviolet Reflector. *G. F. Polyakov and S. N. Rukin.* **1986, No. 6, 1342 [96].**

Arkad'ev-Marks Generator with Cascaded Cutoff Spark Gaps. *S. N. Rukin.* **1986, No. 6, 1345 [98].**

High-Voltage Pulse Generator with High Actuation Frequency. *N. K. Kapishnikov.* **1987, No. 2, 336 [87].**

Resonant Megavolt Pulse Generator. *K. A. Zheltov, A. V. Malygin, A. N. Petrenko, and V. F. Shalimanov.* **1987, No. 2, 343 [92].**

High-Voltage Nanosecond Pulse Generator with GIN-500-0.02/5 for Streamer Chamber. *V. D. Aksinenko, N. S. Glagoleva, E. A. Dement'ev, N. I. Kaminskii, A. T. Matyushin, V. T. Matyushin, N. N. Nugrozhin, V. N. Ryakhovskii, E. K. Khusainov, and E. A. Shevchenko.* **1987, No. 3, 601 [97].**

High-Voltage Nanosecond Pulse Generator for Triggering of Megavolt Peaking Dischargers. *L. A. Gromova, S. B. Evlampiev, G. S. Korshunov, M. T. Pichugina, and Yu. F. Sviridov.* **1987, No. 3, 603 [99].**

High-Voltage Nanosecond Pulse Shaper. *N. K. Kapishnikov, V. M. Muratov, and A. A. Shatanov.* **1987, No. 3, 608 [103].**

High-Speed High-Voltage Pulse Generator. *V. I. Ushakov.* **1987, No. 5, 1115 [92].**

Snop-3 Pulse Generator. *N. F. Kovsharov, A. V. Luchinskii, G. A. Mesyats, N. A. Ratakhin, S. A. Sorokin, and V. F. Fedushchak.* **1987, No. 6, 1367 [84].**

Multicable High-Voltage Pulse Generator. *A. I. Gerasimov and V. F. Bukharov.* **1987, No. 6, 1373 [89].**

Generator of Nanosecond Pulses with Amplitude to 1 MV. *V. M. Evdokimovich, S. B. Evlampiev, G. S. Korshunov, and N. V. Sedov.* **1988, No. 1, 119 [109].**

High-Speed Voltage-Pulse Generator. *R. I. Valeev, M. G. Nikiforov, and A. F. Kharchenko.* **1988, No. 3, 630 [97].**

Multichannel High-Voltage Pulse Generator. *N. K. Kapishnikov and V. M. Muratov.* **1988, No. 4, 925 [88].**

1-MV Section for High-Current Pulse Generators. *B. M. Koval'chuk, V. A. Kokshenev, A. A. Novikov, and V. P. Yakovlev.* **1989, No. 1, 153 [137].**

High-Voltage Nanosecond Pulse Generator for Streamer Chamber. *V. D. Aksinenko, E. A. Dement'ev, N. I. Kaminskii, V. T. Matyushin, A. T. Matyushin, and V. N. Ryakhovskii.* **1989, No. 2, 389 [120].**

Five-Channel High-Voltage Pulse Generator. *N. V. Zhukov, R. M. Muzafarov, and M. M. Pashin.* **1989, No. 1, 146 [131].**

High-Power Microsecond Voltage-Pulse Generator. *P. S. Anan'in, S. P. Bugaev, V. M. Bystritskii, I. B. Ivanov, V. B. Karpov, Ya. E. Krasik, B. M. Koval'chuk, A. V. Novikov, A. V. Petrov, N. N. Ryzhakin, V. G. Tolmacheva, and A. E. Ch'e.* **1989, No. 5, 1139 [149].**

"Iskra" 4-MV Test Bench. *N. G. Beruchev, E. P. Bol'shakov, V. V. Vecherkovskii, Yu. A. Istomin, and F. A. Fedorov.* **1990, No. 5, 1111 [129].**

High-Voltage Square-Pulse Generator with 1-nsec Rise Time. *Yu. F. Bondar', A. A. Goman'ko, V. I. Krementsov, V. D. Krylov, G. P. Mkheidze, and A. A. Savin.* **1991, No. 1, 142 [142].**

Arkad'ev–Marx Generators with Improved Synchronization of Dischargers with High Electric-Strength Margins. *A. I. Gerasimov and A. S. Fedotkin.* **1991, No. 1, 147 [146].**

Voltage-Pulse Generator with Partial Capacitor Discharging. *S. N. Rukin and B. G. Slovikovskii.* **1991, No. 2, 357 [117].**

High-Voltage Pulse Generator with Subnanosecond Rise Time. *N. I. Boiko and I. A. Safronov.* **1991, No. 3, 573 [93].**

Generator of Quasisquare Voltage Pulses with Alternately Actuated Dischargers. *S. N. Rukin and B. G. Slovikovskii.* **1991, No. 5, 1101 [111].**

8.4.6. Energy-storage devices

Controlling Charging of a Capacitive Storage Element. *O. B. Danilov and A. P. Kraev.* **1977, No. 5, 1368 [121].**

Power Supply and Stabilization System for the Charging Unit of an Electrostatic Accelerator. *V. A. Nikitin and V. P. Yakushev.* **1978, No. 4, 860 [29].**

System for the Control of the Parameters of a Capacitive Storage. *O. M. Nikov, V. A. Kirpichnikov, G. V. Pudkova, and V. G. Khomyakov.* **1979, No. 1, 96 [92].**

Capacitor Battery for One Megajoule Having a Small Time Constant. *V. A. Burtsev, V. N. Litunovskii, V. F. Prokopenko, and G. M. Makeev.* **1979, No. 4, 1056 [167].**

Low-Inductance Capacitor Module for Charging to 100 kV and Energy Storage Capacity 80 kJ. *A. B. Andrezen, V. A. Burtsev, V. M. Vodovozov, A. A. Drozdov, and G. M. Makeev.* **1980, No. 2, 407 [109].**

Charger for a 1.2-MJ Capacitive Energy Store. *P. G. Alimov, V. I. Koshevel, K. N. Sukushin, and M. N. Timofeev.* **1980, No. 6, 1418 [99].**

Low-Induction 12 kJ Universal Capacitor Module. *V. A. Burtsev, G. M . Makeev, and V. F. Prokopenko.* **1981, No. 3, 699 [124].**

Inertial Energy Store for Producing High-Energy Electrical Pulses. *V. N. Kunin, V. V. Dorozhkov, and M. V. Sergeeva.* **1981, No. 3, 777 [199].**

Protection of a Capacitor Energy Store in Condenser Breakdown. *A. S. Gasheev, Yu. P. Kuz'michev, A. I. Kucherov, and V. M. Murugov.* **1981, No. 5, 1213 [109].**

Automatic Charging of Storage Capacitors. *I. I. Kravtsevich and A. V. Smirnov.* **1982, No. 1, 166 [146].**

Inductive Energy Storage Element with a Final Thyristor Current Breaker. *A. K. Kozlev, S. V. Korotkov, I. I. Rodichev, and N. S. Yakovchuk.* **1982, No. 2, 386 [99].**

Low-Inductance Cable Collectors for Capacitive Energy Storage Elements. *A. V. Grigor'ev and P. N. Dashchuk.* **1982, No. 3, 621 [103].**

High-Power Three-Stage Switch for an Electrical Discharger with Inductive Energy-Storing Element. *I. A. Ivanov, A. P. Lototskii, N. P. Pugachev, and V. A. Trukhin.* **1982, No. 4, 895 [106].**

Square-Voltage-Pulse Shaper with Inductive Energy-Storage Device. *S. V. Agatzhanyan, I. N. Grigor'ev, E. I. Lapshin, and E. A. Polyakov.* **1983, No. 1, 85 [80].**

Charging Control for Energy-Storage Capacitors. *M. A. Muravitskii, A. M. Gulyuk, and A. E. Lozovenko.* **1984, No. 3, 632 [107].**

Precision Stabilizer for the Integral Values of Pulse Currents in Inductive Loads. *V. D. Skirda, V. A. Sevryugin, and V. I. Sundukov.* **1984, No. 6, 1432 [122].**

Charging Arrangement for Storage-Capacitors of Large Size. *S. D. Savov and O. E. Denchev.* **1985, No. 2, 413 [139].**

Transformer Inductive Storage Unit for Generating High-Voltage Pulses with Flat Tops. *I. N. Grigor'ev, E. I. Lapshin, E. A. Polyakov, and Z. T. Tenieshvili.* **1985, No. 4, 845 [104].**

Pulse Charging Device. *L. D. Butakov, V. A. Vizir', V. K. Dubich, N. A. Lashuk, N. G. Shubkin, and V. P. Shcherbinin.* **1985, No. 5, 1105 [107].**

Capacitive Storage Device for Strobotron Supply. *V. G. Oshlakov and N. V. Bybyakin.* **1985, No. 5, 1108 [110].**

System for Regulated Resonant Charging of Modulators of SILUND-20 Accelerator. *G. V. Dolbilov, N. I. Lebedev, S. V. Uzlov, A. A. Fateev, and B. G. Shchinov.* **1986, No. 5, 1005 [22].**

Short-Circuit Protection for Capacitive Storage Devices with Thyristor Commutators. *A. V. Grigor'ev and N. M. Chestnova.* **1986, No. 6, 1383 [130].**

Cable Collector of 1-MJ Capacitive Storage Device. *A. M. Baltakhanov, V. N. Bondaletov, V. I. Zherlygin, and E. N. Ivanov.* **1987, No. 4, 871 [106].**

Damping of Returning Pulses between Charging Supply and Shaping Line. *V. F. Bukharov, A. I. Gerasimov, and A. S. Fedotkin.* **1987, No. 5, 1113 [90].**

Switching a Capacitor Bank at Stored Energies up to 100 kJ. *N. K. Kapishnikov and V. M. Muratov.* **1987, No. 6, 1376 [92].**

Inductive Storage Device. *V. N. Kunin, N. G. Konopasov, and V. S. Pleshivtsev.* **1988, No. 3, 637 [103].**

Complex for Pulse Diagnosis of Discharge Parameters of Capacitive Storage Device. *S. I. Antipov, I. V. Galakhov, A. S. Gasheev, S. N. Gudov, D. Yu. Il'in, G. A. Kirillov, V. M. Murugov, V. I. Pankratov, and I. N. Pegoev.* **1990, No. 5, 1114 [132].**

Capacitive-Storage-Device Complex of Iskra-5 Apparatus. *V. G. Bezuglov, I. V. Galakhov, A. S. Gasheev, S. N. Gudov, V. I. Zolotovskii, A. Yu. Il'in, G. A. Kirillov, Yu. P. Kuz'michev, A. I. Kucherov, S. L. Logutenko, V. M. Murugov, V. A. Osin, I. N. Pegoev, and V. N. Petrakov.* **1991, No. 3, 581 [100].**

2.5-MJ, 5(10)-kV Capacitive Storage Device. *A. M. Baltakhanov, E. N. Ivanov, V. I. Zherlygin, A. V. Lovenetskii, Yu. V. Markitanov, A. V. Alekseev, V. S. Eremenko, A. I. Kapustin, and M. I. Ral'chenko.* **1991, No. 3, 584 [103].**

8.4.7. Components of high-power pulse devices

High-Voltage Wide-Band Voltage Divider. *B. A. Demidov and M. V. Ivkin.* **1977, No. 2, 454 [115].**

High-Voltage Mega-Ampere Cable Transformer. *G. S. Villeval'd, V. N. Krasyuk, and G. I. Sil'vestrov.* **1977, No. 4, 1105 [166].**

High-Power Water-Filled High-Voltage Shaping Line with Damping of the Hydraulic Surge. *B. A. Demidov, Yu. M. Krasnikov, I. V. Naumov, and S. D. Fanchenko.* **1978, No. 6, 1544 [83].**

Decoupling–Matching Transformer for Improvement of Current Rise Time in a Low-Inductance Load. *A. B. Andrezen, V. A. Burtsev, V. G. Bakuta, V. M. Vodovozov, A. A. Drozdov, and Yu. K. Pchelintsev.* **1979, No. 3, 765 [140].**

Powerful High-Voltage Pulsed Transformer. *S. S. Vdovin.* **1979, No. 4, 1053 [164].**

A Divider for Measuring Nanosecond EHT Pulses. *Yu. M. Arkatov, P. I. Vatset, V. I. Voloshchuk, E. A. Gavrilichev, V. A. Zolenko, and I. M. Prokhorets.* **1980, No. 1, 123 [125].**

High-Power High-Voltage Pulse Transformer. *S. S. Vdovin.* **1981, No. 3, 690 [116].**

Subnanosecond Shunt-Attenuator Based on Segments of Long Lines. *K. A. Zheltov, V. I. Matakov, and V. F. Shalimanov.* **1981, No. 3, 693 [119].**

Equivalent Active Load for High-Power Pulse Generators. *É. S. Ermolovich and N. M. Lepekhin.* **1982, No. 3, 624 [106].**

Small High-Voltage Fuse. *Yu A. Kotov, V. S. Sedoi, and L. I. Chemezova.* **1983, No. 2, 352 [104].**

Calibration of Large-Diameter Self-Integrating Rogowski Coils. *A. I. Gerasimov and E. G. Dubinov.* **1983, No. 2, 392 [139].**

Rogowski Loop with Subnanosecond Rise Time for the Measurement of Current Adjustable over a Wide Range. *A. I. Gerasimov and E. G. Dubinov.* **1983, No. 3, 611 [110].**

High-Voltage Glycerin-Film Insulation. *N. F. Kovsharov and V. F. Fedushchak.* **1984, No. 3, 764 [217].**

High-Current High-Voltage Resistor. *V. I. Manylov and V. N. Shendrik.* **1984, No. 4, 910 [112].**

High-Voltage Broadband Voltage Divider. *V. M. Murugov, J. P. Okutin, V. I. Pankratov, and Yu. A. Polyanitsa.* **1984, No. 5, 1177 [120].**

Collector for Conducting High Pulse Currents to Small-Size Load. *I. Yu. Beneskriptov, S. I. Dashkina, V. A. Krylov, B. A. Larionov, G. M. Makeev, V. F. Soikin, and V. A. Churaev.* **1985, No. 1, 119 [117].**

500-kV Capacitive Divider in Inductor with Water Insulation. *A. I. Gerasimov, A. P. Gridasov, and Yu. G. Kataev.* **1985, No. 4, 849 [107].**

Coaxial Pulse Matching Transformer. *V. V. Ledenev and L. T. Khimenko.* **1985, No. 6, 1372 [123].**

Vacuum Insulator with Shielded Dielectric Surface. *Yu. A. Kotov, N. E. Rodionov, V. P. Sergienko, S. Yu. Sokovin, and A. L. Filatov.* **1986, No. 2, 415 [138].**

High-Power Pulse Transformer. *V. A. Vizir', A. S. El'chaninov, F. Ya. Zagulov, N. F. Kovsharov, S. A. Sorokin, and V. F. Fedushchak.* **1986, No. 5, 1087 [95].**

Pulse Transformer for Recording of Nanosecond Currents. *V. P. D'yakonov and V. Yu. Smerdov.* **1987, No. 2, 355 [103].**

Use of Transformer Instead of Charging Inductor in High-Voltage Generators. *V. D. Aksinenko, E. A. Dement'ev, N. I. Kaminskii, A. T. Matyushin, and V. T. Matyushin.* **1987, No. 4, 863 [100].**

Low-Impedance Strip Shaping Lines for Linear Induction Accelerators. *E. G. Furman.* **1987, No. 5, 1037 [26].**

Noise-Immune Rogowski Loop with Nanosecond Rise Time. *A. I. Gerasimov and E. G. Dubinov.* **1988, No. 3, 624 [93].**

Vacuum Pulse Transformer with Magnetic Isolation. *V. V. Bulan, E. V. Grabovskii, Yu. V. Koba, V. D. Korolev, V. I. Liksonov, A. A. Lukin, S. L. Nedoseev, G. M. Oleinik, L. I. Rudakov, V. P. Smirnov, A. S. Chernenko, and I. R. Yampol'skii.* **1988, No. 4, 942 [102].**

Transmission-Line Pulse Transformer. *V. V. Bulan, E. V. Grabovskii, V. A. Kalenskii, V. D. Korolev, Yu. V. Koba, V. I. Liksonov, A. A. Lukin, S. L. Nedoseev, and I. R. Yampol'skii.* **1988, No. 5, 1197 [94].**

Nanosecond High-Voltage Capacitive Divider. *L. M. Vasilyak, V. A. Doinikov, and O. P. Nesterkin.* **1988, No. 6, 1487 [104].**

Prebreakdown Phenomena in Vacuum Insulator of 1.3-MV Pulse Apparatus. *G. M. Kassirov, N. N. Koval', and V. N. Chekrygin.* **1989, No. 3, 601 [99].**

Rogowski Loop with Multilayer Coil and Nanosecond Rise Time. *A. I. Gerasimov.* **1989, No. 3, 613 [110].**

High-Voltage Divider with Distributed Coaxial Shield. *E. S. Ermolovich and T. I. Davydova.* **1990, No. 2, 364 [118].**

Inductive Voltage Divider. *V. I. Zaitsev, A. P. Kostromin, and G. M. Oleinik.* **1990, No. 4, 842 [119].**

Study of the Electric Strength of High-Voltage Vacuum Gaps. *V. V. Shirokov.* **1990, No. 5, 1130 [148].**

Short-Circuited Coaxial Shunt for Rogowski-Loop Calibration. *V. I. Modzolevskii.* **1990, No. 5, 1137 [154].**

Wideband Voltage Divider. *V. S. Belkin.* **1990, No. 5, 1219 [223].**

Short-Pulse Rogowski Loop with Metal Core. *A. I. Gerasimov.* **1991, No. 1, 151 [150].**

Dummy Resistive Load for Ultrahigh-Power Microsecond-Pulse Generator. *É. S. Ermolovich and N. M. Lepekhin.* **1991, No. 1, 154 [153].**

Compensated Shunt for Oscillographic Recording of Single Current Pulses. *V. F. Sen'ko and B. A. Kuznetsov.* **1991, No. 3, 559 [80].**

Nonlinear Resistors for Protection of High-Power Pulse Generators. *Yu. A. Kotov, S. Yu. Sokovnin, and V. A. Gizhevskii.* **1991, No. 3, 576 [96].**

Current Sensor Based on Helical-Line Sections. *A. I. Pavlovskii, V. S. Bosamykin, V. P. Gritsyna, and V. A. Savchenko.* **1991, No. 3, 594 [111].**

Comments on A. I. Gerasimov's Article "Rogowski Loop with Multilayer Coil and Nanosecond Rise Time" (Prib. Tekh. Éksp., No. 3, 110 (1989)). *G. M. Oleinik.* **1991, No. 4, 992 [228].**

Response to Comments of G. M. Oleinik. *A. I. Gerasimov.* **1991, No. 4, 993 [228].**

8.4.8. High-power switches and commutators

Multichannel High-Current Pulsed Commutator. *R. D. Ziganshin and A. P. Gagarin.* **1977, No. 2, 475 [133].**

Fast-Acting Vacuum Commutator with Connection by Liquid-Metal Contacts. *T. G. Galkina, O. A. Gusev, A. G. Nachaev, and E. P. Pavlov.* **1977, No. 2, 506 [161].**

Controlled Gas Discharge Switch with a Cold Cathode. *G. I. Nosov and S. A. Smirnov.* **1977, No. 4, 1147 [206].**

Remotely Controlled Contacts Carrying Megaampere Currents. *G. S. Villeval'd, V. N. Karasyuk, and G. I. Sil'vestrov.* **1978, No. 4, 980 [128].**

High-Speed Switching System of High-Voltage Pulse Generator. *I. R. Pekar'.* **1978, No. 5, 1293 [125].**

Use of Saturable Reactors to Switch High Energies. *N. P. Polyakov, P. P. Rumyantsev, V. V. Sinenko, and Yu. P. Yarushkin.* **1978, No. 5, 1297 [129].**

Service Life of Vacuum Frequency Switching Elements. *I. A. Voronezhskaya, L. N. Kosmarskii, L. G. Sinel'nikova, and L. S. Éig.* **1979, No. 6, 1620 [129].**

Light Control-Pulse Detector for the Current Switches in a High-Voltage Pulse Generator. *V. N. Eliseev, N. A. Ivanov, and V. F. Kondakov.* **1980, No. 1, 150 [149].**

Current Breaker with Electric Exploder Drive. *V. G. Belan and S. T. Durmanov.* **1980, No. 4, 901 [91].**

High-Speed Fluid Switching Device with an Induction-Dynamic Drive. *V. N. Bondaletov and V. E. Lapshin.* **1980, No. 6, 1429 [107].**

Six-Anode High-Power Switching Device. *O. G. Bespalov, A. S. Knyazyatov, A. I. Nastyukha, P. A. Smirnov, and A. N. Udovenko.* **1982, No. 1, 169 [149].**

High-Power High-Frequency Switching. *V. I. Voronov, A. E. Kirilov, A. N. Soldatov, V. F. Fedorov, and N. A. Yudin.* **1982, No. 1, 171 [151].**

High-Current Commutator. *O. G. Bespalov, V. V. Veselovskii, A. I. Nastyukha, and A. N. Udovenko.* **1982, No. 3, 611 [94].**

High-Power–High-Voltage–High-Speed Commutator. *V. I. Brylevskii, I. V. Grekhov, A. F. Kardo-Sysoev, and I. G. Chashnikov.* **1982, No. 3, 613 [96].**

High-Power–High-Voltage Electronic Commutator for Protecting Electrophysical Installations. *V. I. Perevodchikov, V. S. Lipatov, I. G. Khomskii, N. N, Starshinov, L. A. Gubin, N. V. Matveev, L. M. Samarina, and V. M. Stuchenkov.* **1982, No. 3, 616 [98].**

Control System Module for Pulsed Energy Sources. *E. A. Azizov, V. A. Vorob'ev, Yu. G. Gendel', V. I. Nekhaev, and A. M. Yarosh.* **1982, No. 3, 618 [100].**

Reversible Thyristor Relay Commutator for Direct Current. *A. T. Tvanenko.* **1982, No. 3, 659 [135].**

High-Voltage dc Current Chopper. *V. V. Ivanov and A. I. Sayvatimskii.* **1982, No. 4, 898 [108].**

Automatic Triggering of Spark Discharge Gaps in a Current Pulse Generator. *M. I. Kozlov, V. L. Gershenkroi, N. I. Gordienko, and V. I. Goshurenko.* **1983, No. 3, 598 [98].**

Double Shaping Line Switch in an Experimental Module of the Angara-5 Apparatus. *V. V. Vecherkovskii, Yu. A. Istomin, Yu. V. Koba, B. M. Koval'chuk, V. A. Lavrinovich, G. M. Latmanizova, A. S. Perlin, O. P. Pecherskii, Yu. F. Potalitsyn, and I. R. Yampol'skii.* **1983, No. 4, 878 [124].**

Reusable Direct-Current Switch. *N. A. Akhmerov, V. P. Gerasimov, V. A Godonyuk, A. M. Gribkov, Yu. Ya. Egorov, A. I. Emel'yanov, M. A. Zhavoronkov, and A. I. Smolyak.* **1983, No. 4, 888 [132].**

Thyratron Commutator for Tesla Transformer with Increased Pulse-Repetition Rate. *Yu. G. Bamburov, I. V. Kazarezov, and E. N. Kokin.* **1984, No. 3, 628 [104].**

High-Voltage Thyristor Commutator with Optoelectronic Control. *S. Ya. Verkhovskii and V. P. Egorov.* **1985, No. 3, 628 [118].**

Thyratron-Choke Switch for High-Current Nanosecond Pulses. *V. A. Vizir', N. G. Shubkin, A. V. Laier, and V. V. Chervyakov.* **1985, No. 6, 1366 [118].**

High-Voltage Thyristor-Transistor Commutator. *K. Kh. Kyverik, V. A. Rudskii, and V. V. Togatov.* **1986, No. 1, 137 [119].**

High-Power Thyristor Pulse Commutator. *V. V. Gubanov, V. P. Epechurin, V. M. Petrov, and N. A. Rezvyakov.* **1986, No. 1, 140 [122].**

dc Switch with High-Speed Oil Flow in Arc Region. *V. E. Lapshin.* **1986, No. 2, 411 [134].**

Coaxial Injection Thyratron. *A. M. Efremov, B. M. Koval'chuk, V. S. Tolkachev, and P. M. Shchanin.* **1986, No. 4, 859 [99].**

High-Speed Commutation System for Arkad'ev-Marks Voltage-Pulse Generator. *N. K. Kapishnikov.* **1987, No. 1, 116 [109].**

Commutator for High-Power Radio-Frequency Pulses. *B. I. Petrov.* **1987, No. 3, 616 [109].**

Commutator for Inductive Storage Device. *I. M. Gavrilov.* **1987, No. 3, 618 [111].**

Current Commutator for Generator with Inductive Storage Device. *Yu. L. Sitenkov.* **1987, No. 3, 620 [113].**

Magnetically Controlled Gas-Discharge Current Breaker. *A. M. Arsh, V. I. Krizhanovskii, A. I. Kuz'michev, V. A. Lapshin, V. M. Rtishchev, and A. I. Shendakov.* **1987, No. 3, 625 [116].**

Trigger Circuit for High-Power Pulse Thyratrons. *V. A. Vizir' and S. P. Sychev.* **1988, No. 1, 135 [117].**

Thyristor Commutator for Laser Neutron Generator. *V. A. Kozlov, K. I. Kozlovskii, and I. V. Pishchulin.* **1988, No. 3, 712 [164].**

Multichannel Switches for Current-Pulse Generators. *G. M. Koliushko, V. V. Konotop, G. L. Mezhibovskii, E. V. Platonova, and E. A. Shelekhov.* **1989, No. 1, 143 [128].**

2-MV Water-Insulated Commutator. *N. F. Kovsharov, N. A. Ratakhin, and V. F. Fedushchak.* **1990, No. 2, 359 [114].**

Combination Explosive Switches for Pulsed Current Multipliers. *A. A. Sivkov, V. L. Korol'kov, and A. G. Chervyakov.* **1990, No. 3, 595 [108].**

Pulse Multiplier for Simultaneous Triggering of High-Voltage Ignitrons. *V. I. Modzolevskii.* **1990, No. 3, 598 [111].**

Trigger Device for High-Voltage Power Thyratrons. *V. I. Modzolevskii.* **1990, No. 3, 606 [118].**

Multichannel Malfunction Detector for Simultaneously Actuated Switches. *V. I. Modzolevskii.* **1991, No. 4, 864 [118].**

8.4.9. Dischargers

Design of Water Spark Gaps and Their Commutation Characteristics. *N. K. Kapishnikov, V. M. Muratov, and V. Yu. Ushakov.* **1977, No. 1, 134 [122].**

Plasma Trigatron Spark Gap. *V. V. Baraboshkin.* **1977, No. 2, 472 [131].**

Arc Gap with Magnetic-Field Arc Displacement. *S. P. Bugaev, V. I. Koshelev, A. F. Medvedev, and M. M. Nikitin.* **1977, No. 4, 1100 [162].**

High-Voltage Heavy-Current Arc Gap. *G. S. Villeval'd, V. N. Karasyuk, and G. I. Sil'vestrov.* **1977, No. 4, 1103 [164].**

Megavolt Water-Filled Trigatron-Type Spark Gaps. *V. Ya. Ushakov.* **1977, No. 5, 1364 [118].**

Electrical Circuit for Recording Negative Conductivity on Volt–Ampere Characteristics of High-Current Plasma Tubes. *A. L. Barannikov, P. Yu. Pekshev, B. K. Feoktistov, and V. K. Chernyshev.* **1977, No. 5, 1370 [123].**

High-Voltage Mega-Amp Arc Gap with Destructible Electrodes. *G. S. Villeval'd, V. N. Karasyuk, and G. I. Sil'vestrov.* **1978, No. 1, 76 [75].**

The IRT-4 High-Voltage Pulsed Discharger. *Yu. D. Khromoi, V. P. Andronova, R. G. Antokhin, A. M. Serbinov, and V. I. Sysun.* **1978, No. 2, 473 [195].**

Parallel Operation of Controlled Discharge Gaps in a Current Pulse Generator. *I. I. Kalyatskii, G. S. Korshunov, M. T. Pichugina, V. V. Sedov, and V. V. Khmyrov.* **1978, No. 4, 973 [122].**

High-Voltage Discharge Gaps Filled with Transformer Oil. *N. K. Kapishnikov, V. M. Muratov, and V. Ya Ushakov.* **1978, No. 4, 975 [124].**

High-Speed High-Power Pulsed Gas Discharger. *L. K. Lytkin, A. F. Pisarev, V. F. Pisarev, and G. S. Revenko.* **1978, No. 5, 1291 [123].**

Gas Mixture N_2 + SF_6 + Ar for a High-Pressure Discharger. *B. M. Koval'chuk, V. A. Lavrinovich, Yu. F. Potalitsyn, and V. V. Toptygin.* **1979, No. 2, 434 [135].**

Stability of a High-Voltage Spark Gap with a Flow of Working Gas between the Electrodes. *A. S. El'chaninov, F. Ya. Zagulov, S. D. Korovin, and G. A. Mesyats.* **1979, No. 4, 1051 [162].**

Filling of Dischargers with a Mixture of SF_6 and Ni_2. *A. I. Gerasimov and V. B. Saltykov.* **1979, No. 4, 1171 [265].**

Discharger with High Pulse Repetition Frequency. *D. D. Malyuta and V. S. Mezhevov.* **1980, No. 4, 900 [89].**

Laser Ignition of the Water Discharger for the Twin Pulse-Forming Line of an Electron Accelerator. *B. A. Demidov, M. V. Ivkin, and V. A. Petrov.* **1980, No. 4, 904 [93].**

Controlled Megavolt Gas-Filled Discharger. *V. M. Evdokimovich, S. B. Evlampiev, G. S. Korshunov, V. A. Nikolaev, Yu. F. Sviridov, and V. V. Khmyrov.* **1980, No. 5, 1190 [127].**

Precision Peaking Discharger with a Nonlinear Element in an Inductive Storage Circuit with Foil Breaker. *A. V. Grigor'ev, A. G. Novikov, V. V. Titkov, and G. A. Shneerson.* **1980, No. 5, 1193 [129].**

Thyristor Discharger in a Pulsed Magnetic Field Generator. *D. V. Mashovets, D. V. Shamshur, and M. A. Shakhov.* **1980, No. 5, 1195 [130].**

Control System for Firing Parallel Field-Distortion Discharge Gaps. *A. I. Gerasimov and E. G. Dubinov.* **1981, No. 4, 965 [133].**

A Control Circuit for a Thyristor Discharge Unit. *M. I. Aliev, A. Z. Daibov, I. A. Ismailov, and A. A. Kravtsov.* **1981, No. 5, 1212 [108].**

Controllable Discharger for a Capacitive Storage Module. *V. G. Bezuglov, R. K. Borisov, I. V. Galakhov, A. S. Gasheev, V. I. Ivanov, Yu. P. Kuz'michev, A. I. Kucherov, A. F. Maslov, V. M. Murugov, and E. N. Prokhorov.* **1981, No. 6, 1442 [105].**

High-Voltage Laser Spark Discharger. *P. I. Myshalov, B. A. Bushuk, S. A. Tikhomirov, and G. B. Tolstorozhev.* **1982, No. 2, 434 [142].**

Stable Spark Gaps for Voltages up to 20 kV with Short Triggering Times. *L. E. Aranchuk, L. A. Dorokhin, E. V. Znatnov, M. V. Tulupov, and V. Ya. Tsafrin.* **1982, No. 5, 1200 [138].**

3-MV High-Current Clipping Discharger. *A. N. Bastrikov, B. M. Koval'chuk, V. A. Kokshenev, V. I. Manylov, V. G. Podkovyrov, and Yu. F. Potalitsyn.* **1983, No. 1, 88 [83].**

High-Voltage Controlled Spark Gap with a High Operating Frequency. *E. P Bel'kov, G. I. Belyaev, P. N. Pashuk, G. L. Spichkin, and M. D. Yarysheva.* **1983, No. 2, 354 [105].**

Analog Models of Spark Discharge Gaps. *A. G. Ponomarenko and A. S. Surkov.* **1983, No. 4, 882 [127].**

Multichannel Discharger with Self-Synchronization. *A. S. Vorob'ev, S. V. Denbnovetskii, S. Sh. Zaldman, V. A. Kirpichnikov, E. A. Kozlov, V. I. Krizhanovskii, A. I. Kuz'michev, V. N. Rybin, and I. Shendakov.* **1983, No. 5, 1127 [117].**

Variable Discharger for the Shaping of Nanosecond Pulses. *N. V. Belokurova, V. I. Berdnik, and L. N. Kosmarskii.* **1983, No. 5, 1130 [119].**

Pressurized 40-kV, 300-kA Three-Electrode Discharger. *A. I. Zemskov, A. N. Mokeev, and V. V. Prut.* **1984, No. 1, 147 [133].**

Dischargers for a Pulsed-Voltage Generator. *V. D. Aksinenko, V. D. Volodin, E. A. Dement'ev, N. I. Kaminskii, A. T. Matyushin, V. T. Matyushin, and E. A. Matyushevskii.* **1984, No. 2, 360 [101].**

150-kV Rail-Type Gas Discharger. *V. T. Kolesnik, A. Yu. Kropotov, S. N. Kurochkin, S. I. Panasenko, and V. V. Chernyi.* **1986, No. 1, 116 [108].**

High-Speed High-Voltage Thyratron Discharger. *N. K. Kapishnikov and V. M. Muratov.* **1986, No. 1, 120 [111].**

Controlled Gas-Filled Coaxial Discharger. *V. B. Shlyakovoi and V. G. Borisov.* **1986, No. 1, 131 [115].**

Distorted-Field Dischargers. *I. R. Pekar', V. A. Bocharov, and P. N. Mel'nikov.* **1986, No. 5, 1096 [104].**

Controlled Gas-Filled Discharger with Wide Stable-Triggering Zone. *N. K. Kapishnikov.* **1986, No. 6, 1370 [119].**

Sealed High-Voltage High-Current Controlled Vacuum Dischargers. *M. A. Vasilevskii, V. A. Vozdvizhenskii, V. A. Sidorov, and E. G. Yankin.* **1986, No. 6, 1374 [123].**

Reliable, Precisely Synchronized 100-kV Discharger. *V. S. Bosamykin, A. I. Gerasimov, D. I. Zenkov, K. A. Morunov, S. T. Nazarenko, A. I. Pavlovskii, S. Ya. Slyusarenko, and A. S. Fedotkin.* **1987, No. 2, 346 [94].**

Transparent Laser Dischargers. *K. I. Kozlovskii, A. S. Tsybin, and A. E. Shikanov.* **1987, No. 2, 349 [98].**

High-Current Gas-Filled 5-kV Discharger. *N. K. Kapishnikov.* **1987, No. 2, 352 [100].**

Controllable Peaking Gas-Filled 2.5-MV Discharger. *S. B. Evlampiev, G. S. Korshunov, Yu. F. Sviridov, and V. V. Khmyrov.* **1987, No. 3, 628 [118].**

Controllable Nanosecond Repeated-Action Solid-State Discharger. *G. S. Korshunov and V. M. Paigin.* **1987, No. 3, 632 [122].**

Uncontrolled Pulse Dischargers with Increased Actuation Stability. *O. V. Davydov and M. G. Nikiforov.* **1987, No. 4, 857 [95].**

Multigap Controlled Discharger. *G. V. Naimark.* **1987, No. 4, 860 [98].**

Multichannel Spark Discharger. *G. G. Kanaev and E. G. Furman.* **1987, No. 5, 1117 [95].**

Extended-Life Trigatron Discharge Device. *N. K. Kapishnikov and V. M. Muratov.* **1987, No. 6, 1380 [96].**

Parallel Discharge-Gap Switching in an Arkad'ev-Marks Generator. *S. N. Rukin.* **1987, No. 6, 1384 [100].**

Multichannel Spark Dischargers for Commutation of Low-Impedance Strip Shaping Lines. *E. G. Furman and V. V. Vasil'ev.* **1988, No. 1, 122 [111].**

Method for Measurement of Characteristics of High-Voltage Nanosecond Discharge. *A. L. Pekal'n, A. I. Shishenin, and A. A. Sysoev.* **1988, No. 2, 346 [77].**

Effect of Gas Filler on Time Characteristics of Trigatron Discharger. *N. K. Kapishnikov.* **1988, No. 3, 639 [105].**

Initiation of Pulse Discharge on Dielectric Surface in High-Current Vacuum Commutators. *T. G. Akhmatova, G. S. Kichaeva, and P. I. Shkuropat.* **1988, No. 3, 646 [111].**

Controlled Discharger for Installation on IK50-3 Capacitor. *S. Yu. Bobrov, A. S. Gasheev, A. I. Kucherov, A. F. Maslov, V. M. Murugov, and V. N Petrakov.* **1988, No. 4, 946 [105].**

Dischargers with Field Distortion. *N. V. Zhukov, G. V. Naimark, and I. K. Reshidov.* **1988, No. 4, 949 [108].**

Controlled High-Current Discharger with Actuation Frequency of 100 Hz. *N. M. Bykov, O. A. Vashaev, V. P. Gubanov, A. V. Gunin, S. D. Korovin, and A. F. Yakushev.* **1988, No. 6, 1477 [96].**

Trigger Device for Multichannel Discharger. *V. V. Vasil'ev, E. I. Lukonin, and E. G. Furman.* **1988, No. 6, 1481 [99].**

Optimization of Triggering of Laser Air Discharger. *K. I. Kozlovskii and I. V. Pishchulin.* **1989, No. 1, 138 [125].**

Controlled High-Voltage Discharger with Electric-Field Distortion. *V. V. Baranov, A. A. Beloglazov, A. Yu. Dudin, S. G. Perlov, A. V. Romanov, N. N. Ustinovskii, and I. V. Kholin.* **1989, No. 2, 392 [123].**

High-Voltage Peaking Discharger with Wide Switched-Voltage Range. *I. R. Pekar', V. A. Bocharov, L. G. Soldatenko, V. B. Borisenko, and P. N. Mel'nikov.* **1989, No. 2, 395 [125].**

High-Voltage Trigatron-Type Rail Discharger. *N. K. Kapishnikov.* **1989, No. 2, 398 [127].**

Trigger Characteristics of Gas-Filled Cascade Dischargers. *S. B. Evlampiev and G. S. Korshunov.* **1989, No. 2, 405 [133].**

Increasing the Transmitting Capacity of a High-Current Gas-Filled Discharger. *N. K. Kapishnikov.* **1989, No. 3, 604 [102].**

Trigatron Rail Discharger with Edge Control Electrode. *N. K. Kapishnikov and I. A. Kuznetsov.* **1989, No. 4, 877 [127].**

Discharger Units for High-Power Arkad'ev-Marx Generators. *A. A. Novikov.* **1989, No. 4, 882 [131].**

Individual Controlled Discharger for Capacitors with Coaxial Leads. *N. K. Kapishnikov.* **1990, No. 5, 1118 [135].**

Controlled Vacuum Discharger with Staggered Rod Electrodes. *D. F. Alferov, V. A. Vozdvizhenskii, I. O. Sibiryak, and V. A. Sidorov.* **1990, No. 5, 1121 [139].**

Selection of Electrode Material for High-Current Gas-Filled Discharger. *N. K. Kapishnikov, V. M. Muratov, V. E. Grakov, and V. A. Gotlib.* **1990, No. 5, 1126 [143].**

Time Characteristics of Controlled Discharger with Coaxial Electrodes. *N. K. Kapishnikov.* **1990, No. 6, 1323 [92].**

High-Voltage Controlled Discharger with Wide Working-Voltage Range. *N. K. Kapishnikov.* **1991, No. 1, 157 [155].**

Increasing the Accuracy of Trigatron-Discharger Actuation in Control Circuits for Optical Switches. *Yu. S. Denishchik.* **1991, No. 3, 568 [88].**

New Crowbar Circuit. *A. G. Es'kov and M. I. Kitaev.* **1991, No. 4, 856 [112].**

Decomposition of Electromagnetic Waves into Orthogonally Polarized Components and Waveguide Polarization Splitters (Review). *A. V. Khokhlov and O. V. Epifanova.* **1991, No. 3, 483 [15].**

Transistorized Frequency Divider of Microwave Pulses. *Yu. S. Pavlov and S. I. Sharamentov.* **1977, No. 1, 149 [134].**

Variable Attenuator for High Microwave Power Levels. *N. D. Zhivotov and A. E. Tolstoi.* **1977, No. 5, 1394 [142].**

Microwave Power Divider. *E. T. Protasevich.* **1977, No. 5, 1396 [143].**

High-Speed Phase Comparator. *A. V. Purtov and Yu. F. Mukhopad.* **1978, No. 1, 110 [109].**

Converter of Phase Difference of uhf Oscillations to Pulse Count. *A. A. Protopopov and V. A. Protopopov.* **1978, No. 2, 441 [164].**

Use of a Radio Interferometer for the Study of Coherent Transition Radiation in the Microwave Band. *M. V. Burtyka, V. D. Eremka, and A. Ya. Kirichenko.* **1978, No. 4, 1025 [167].**

Efficient Miniature Decimeter-Band Phase Shifter. *S. V. Karmazin and B. I. Smiyan.* **1979, No. 6, 1652 [155].**

Equidensity Technique for Measurement of the Characteristics of Infrared and Microwave Field Distributions. *E. A. Vinogradov, V. I. Golovanov, and N. A. Prisova.* **1980, No. 4, 951 [137].**

Control of p-i-n-Diode uhf Devices. *V. T. Tsarenko, Sh. Kh. Badalishev, A. R. Korsunov, and V. P. Solyanik.* **1983, No. 2, 383 [131].**

Apparatus to Measure the Amplitude and Phase of Microwave Fields. *A. Ch. Belyachits, P. D. Kukharchik, and V. G. Semenchik.* **1983, No. 6, 1354 [94].**

Apparatus for Recording Microwave Interferograms and Holograms Using Liquid Crystals. *L. M. Klyukin and Yu. A. Lyakhov.* **1984, No. 2, 452 [182].**

Digital Regulator for Automatic Radio Equipment. *V. T. Tsarenko, A. R. Korsunov, and Sh. Kh. Baladishev.* **1984, No. 5, 1182 [124].**

Microwave Attenuator. *D. A. Usanov and V. E. Orlov.* **1986, No. 2, 429 [151].**

Converter of Frequency from 1 to 10 GHz. *I. Kh. Stanchev, R. I. Kozhukharov, M. A. Taslakov, and L. K. Urchev.* **1986, No. 4, 849 [89].**

High-Power Kapitsa Apparatus for Study of Microwave Pinch Discharge in Gases. *S. I. Filimonov, A. B. Manenkov, and A. I. Degal'tsev.* **1987, No. 1, 161 [147].**

Apparatus for Measurement of Microwave Electromagnetic Fields in Planar Waveguide Systems. *G. Yu. Kobzarev and V. N. Topol'nitskii.* **1987, No. 5, 1127 [102].**

Shaper of Nanosecond Microwave Pulses with 30-cm-Band Storage Resonator. *S. A. Novikov, S. V. Razin, and Yu. G. Yushkov.* **1988, No. 1, 149 [129].**

Wideband Frequency Converter. *S. V. Melikhov and A. A. Titov.* **1989, No. 5, 1174 [180].**

Ultrawideband Mixer for 1-12 GHz. *V. S. Kharitonov, A. A. Safronov, and Yu. M. Sitkov.* **1989, No. 6, 1345 [101].**

Two-Frequency Wideband Cassegrain Feed. *V. A. Il'in, G. N. Lobova, N. M. Maslennikov, V. A. Somov, and V. S. Etkin.* **1990, No. 2, 371 [124].**

Variable Digital Microwave Attenuator with Automatic Correction. *A. R. Korsunov and A. M. Tishenko.* **1990, No. 3, 629 [136].**

Nanosecond Phase π Modulator with Switch. *A. R. Korsunov, A. M. Tishenko, and N. Ya. Pelishok.* **1990, No. 6, 1327 [96].**

Digital Microwave Q-Meter. *A. V. Kashlyuk.* **1991, No. 1, 119 [123].**

Carrier-Frequency Meter for Single Microwave Pulses. *B. I. Mysenko, O. F. Meshkov, V. I. Nayanov, and A. S. Tatarenko.* **1991, No. 5, 1110 [119].**

Microwave Active Filters Using Locked Semiconductor Oscillators. *S. S. Gorbatov, D. A. Usanov, A. A. Semenov, V. D. Tupikin, A. V. Maiborodin, and V. G. Vinenko.* **1991, No. 5, 1113 [121].**

Radio Imaging by Diversity Phase-Meter System. *V. P. Bezguzikov, N. N. Bondarev, and A. P. Chikhonadskikh.* **1991, No. 5, 1118 [124].**

Control Circuit for Microwave Pin-Diode Devices. *S. B. Venig, B. N. Korotin, A. A. Semenov, and D. A. Usanov.* **1991, No. 5, 1125 [131].**

9.1. Microwave generators, amplifiers, multipliers

Wideband Transistorized Power Amplifier of the Microwave Band. *D. A. Kalinikos.* **1977, No. 1, 161 [143].**

High-Frequency Generator Based on Two Avalanche Diodes. *D. P. Burtovoi, G. G. Kanarik, A. I. Tereshchenko, and N. Z. Chumakov.* **1977, No. 4, 1116 [177].**

Decrease of Amplitude Modulation Following Electronic Tuning of a Reflex Klystron. *N. N. Prentslau, V. M. Dmitriev, and V. D. Bobryshev.* **1978, No. 4, 1028 [169].**

Semiconductor for the 3-cm Band with Electric Frequency Tuning. *V. M. Pudalov.* **1978, No. 5, 1318 [146].**

Installation for the Study of Synchronization of Microwave Generators. *F. R. Abdrashitov and S. N. Kulaev.* **1979, No. 1, 124 [118].**

Self-Excited shf Transistor Oscillator with Electronic Frequency Tuning. *N. I. Bobrovnikova, K. P. Gorshenev, and Yu. E. Kivokurtsev.* **1979, No. 4, 1029 [143].**

Traveling-Wave Tube and Klystron Electronic Frequency Sweeper. *Ch. O. Kadzhar and S. A. Musaev.* **1980, No. 3, 676 [125].**

Frequency Multiplier Based on an Avalanche-and-Transit Diode. *A. Z. Venger, A. N. Ermak, and A. M. Yakimenko.* **1980, No. 3, 691 [138].**

Method of Stabilizing the Frequency of Klystron Microwave Oscillators. *V. I. Panov.* **1980, No. 5, 1187 [124].**

Superhigh-Frequency Locked Oscillator with a Bipolar Transistor. *G. V. Petrov and A. V. Khramov.* **1981, No. 6, 1472 [132].**

High-Stability Gunn-Diode Oscillator for 3-cm Wavelengths. *K. I. Andronik and V. M. Pudalov.* **1982, No. 1, 173 [152].**

Tunable Transistor Microwave Generator. *S. V. Orlov, O. V. Ryzhko, and V. N. Ivanov.* **1982, No. 2, 381 [95].**

Stabilizing and Retuning System for the Frequency of a Backward-Wave Tube. *Ch. O. Kadzhar, S. A. Musaev, and E. Yu. Salaev.* **1982, No. 2, 403 [115].**

Noise Characteristics of a Gunn-Diode Oscillator in the 3-cm-Wavelength Range. *V. M. Pudalov.* **1982, No. 3, 643 [122].**

Effect of Temperature on Noise Parameters of shf Transistors. *N. I. Ivanov and N. S. Yurchak.* **1982, No. 3, 650 [127].**

Transistor Microwave Oscillator Stabilized with a Dielectric Resonator. *G. V. Petrov and A. V. Khramov.* **1982, No. 4, 954 [158].**

Four-Centimeter Traveling-Wave Maser with High Amplitude and Phase Stability. *Ya. L. Shamfarov, A. I. Stetsenko, and S. K. Kondrashin.* **1982, No. 5, 1157 [104].**

SHF Oscillator with Output Power Control. *S. I. Dervishev and B. I. Vichev.* **1982, No. 6, 1423 [99].**

Transistor Oscillator with a Dielectric Resonator. *S. S. Bondarenko, A. Z. Venger, and A. M. Tyurin.* **1984, No. 1, 143 [129].**

Wideband Low-Noise Amplifier for 0.7-2 GHz. *I. Angelov, I. Stoev, and L. Urshev.* **1985, No. 3, 643 [129].**

Simple Gunn Oscillators. *G. G. Tovmasyan, É. R. Amizyan, and A. G. Gulyan.* **1985, No. 6, 1349 [105].**

Microwave Generator with Regulated Output Power. *S. I. Sharamentov.* **1985, No. 6, 1353 [107].**

Frequency Regulation of Amplitude-Modulated Reflex Klystron. *A. A. Belov and I. V. Yaminskii.* **1985, No. 6, 1356 [109].**

4-cm-Band Generator Stabilized by Dielectric Resonator. *A. N. Ermak, V. I. Getalo, and L. G. Kovalenko.* **1986, No. 4, 872 [110].**

High-Power Microwave Generator Module Implemented by 2T975 Transistors. *D. A. Kalinikos, A. A. Makarov, A. V. Mitrofanov, and A. V. Pavlov.* **1986, No. 5, 1099 [107].**

Power Supply of Klystron Oscillator of EPR Spectrometer with Automatic Frequency Control. *V. I. Barchuk.* **1986, No. 5, 1138 [141].**

Generator for Stable High-Frequency Signals Based on a Type G4-109. *V. A. Avgustinovich.* **1986, No. 6, 1348 [101].**

Generation of Nanosecond Microwave Pulses by Gunn Diodes. *V. P. Shiyan, A. I. Popov, and G. S. Gonyaev.* **1986, No. 6, 1350 [103].**

Synchronized Self-Excited Oscillator Using Power Klystron. *V. I. Beloglazov, L. M. Zavada, V. A. Kushnir, and L. N. Sdobnova.* **1987, No. 5, 1125 [101].**

Wideband Quartz-Crystal Synchronization. *S. S. Matevosyan and D. M. Khachatryan.* **1987, No. 6, 1481 [180].**

Quasioptical Gunn Oscillator with Expanded Tuning Range. *O. I. Belous, B. M. Bulgakov, V. N. Skresanov, A. I. Fisun, and A. I. Shubnyi.* **1988, No. 1, 144 [125].**

Circuit for Stabilization of Microwave Generators. *M. A. Taslakov and R. I. Kozhukharov.* **1988, No. 1, 147 [128].**

Stabilized Biharmonic Gunn-Diode Oscillator. *V. T. Buzykin, V. Ya. Noskov, and B. N. Tumanov.* **1988, No. 2, 369 [96].**

Microwave Subnanosecond Current-Pulse Generator. *V. P. D'yakonov, P. G. Adamov, V. M. Vatutin, and P. G. Vanichkin.* **1989, No. 1, 165 [146].**

Self-Excited Decimeter-Band Transistor Oscillator with Low Phase Noise. *S. M. Ryzhakov, L. Yu. Rotkov, and V. P. Presnyakov.* **1989, No. 3, 620 [116].**

High-Voltage Generator with $U = U_0/t^2$. *Yu. A. Bykovskii, A. E. Gruzinov, and V. B. Lagoda.* **1989, No. 4, 875 [125].**

Tunable Stabilized Oscillator. *V. P. Doyuzhenko and I. Kh. Albegova.* **1989, No. 6, 1333 [91].**

Self-Excited Transistor Microwave Oscillator with Dielectric Resonator. *L. G. Plavskii and S. V. Savel'kaev.* **1990, No. 1, 142 [141].**

Highly Stable Wideband Decimeter-Wave Generator. *S. B. Bespechnyi, A. V. Dybskii, K. Yu. Zhuravlev, and V. K. Ivanov.* **1990, No. 2, 369 [122].**

Gunn Oscillator for Formation of Microwave Holograms with Internal Reference Signal. *V. T. Makarenko, G. A. Pinchuk, and V. B. Khaikin.* **1990, No. 3, 615 [124].**

Electronically Tuned Gunn Oscillator. *A. S. Yanev, L. K. Urshev, and I. M. Angelov.* **1990, No. 3, 620 [128].**

Phase-Locked-Loop System for Microwave Oscillator. *S. V. Miginskii.* **1990, No. 3, 622 [130].**

Solid-State Microwave Oscillator with Automatic Frequency Control. *N. V. Volkov and G. S. Patrin.* **1990, No. 5, 1098 [118].**

Quasioptical Open-Resonator Gunn-Diode and Avalanche–Transit-Time-Diode Oscillators. *A. V. Arkhipov, O. I. Belous, B. M. Bulgakov, A. O. Fisun, and A. M. Fursov.* **1991, No. 3, 588 [106].**

9.2. Microwave radiometers and power meters

Thermophotoindication of Distribution of High Levels of SHF Power Fluxes in Liquid Crystals. *V. I. Maksimov and V. A. Chetkarev.* **1977, No. 2, 498 [154].**

Radiometer for the 1.35-cm Range with an Orthomode Type of Mixer. *M. N. Kaidanovskii, Yu. A. Nemlikher, A. A. Stotskii, and I. A. Strukov.* **1977, No. 5, 1398 [145].**

Magnetoresistive Semiconductor Power Meter for the 3-cm-Wavelength Range. *A. N. Komov and Yu. P. Kudryakov.* **1978, No. 3, 720 [156].**

Ultrahigh-Frequency Radiometer with a Superconducting Detector. *I. M. Dmitrenko, N. I. Ivanov, and I. I. Yurchenko.* **1978, No. 3, 722 [158].**

Thermoelectric Transducer for an shf Field Based on Hot Electrons. *S. I. Gechyauskas, Yu. K. Pozhela, and K. K. Repshas.* **1979, No. 2, 472 [168].**

Method of Increasing the Noise Immunity of a Microwave Radiometer. *V. I. Danilov and Yu. I. Modeev.* **1979, No. 6, 1604 [115].**

Circuit for Amplification and Demodulation of Radiometer Output Signals. *V. A. Afanas'ev, V. F. Grebennikov, L. N. Ivanova, V. V. Kalugin, V. I. Lachugin, V. A. Ovcherenko, and V. I. Sobolev.* **1980, No. 4, 939 [126].**

Connecting a Video Display to a Radio-Optical Image Converter. *B. I. Vlasov, V. Yu. Kustov, and A. N. Chaikovskii.* **1984, No. 1, 104 [100].**

Low-Frequency Circuit for a Radiometer. *A. V. Varel'dzhyan and M. G. Tokhmakhyan.* **1984, No. 1, 157 [142].**

Microwave Waveguide Switch for a Low-Noise Radiometer. *M. N. Gabdrakipova, V. A. Il'in, K. Z. Fatykhov, and V. S. Étkin.* **1984, No. 1, 161 [146].**

Wideband Actual-Power Meter. *E. I. Linder and V. N. Gun'kin.* **1985, No. 6, 1370 [121].**

Increasing the Sensitivity of an if-Modulated Radiometer by Regulation of Heterodyne Power. *A. G. Gel'fer, A. D. Lapidus, and Yu. N. Romanychev.* **1986, No. 4, 875 [113].**

Noise Processor for Modulation Radiometer. *A. A. Gorbachev, V. I. Danilov, and Yu. I. Modeev.* **1987, No. 4, 844 [83].**

Diagnosis of High-Power Nanosecond Pulses of Microwave Radiation. *N. M. Bykov, V. P. Gubanov, A. V. Gunin, S. D. Korovin, V. V. Rostov, and M. I. Yalandin.* **1987, No. 6, 1393 [107].**

Microwave Radiometers with Digital Output. *N. N. Vorsin, Yu. A. Militskii, V. M. Shainskii, and V. S. Etkin.* **1988, No. 2, 377 [103].**

Measurement of Gyrotron Power in Experiments in Controlled Thermonuclear Fusion. *P. M. Kosarev and A. A. Skovoroda.* **1989, No. 1, 167 [148].**

Near-Millimeter-Band Radiometer with Subharmonic Mixer and Fast Tuning. *V. O. Aleksandrov, A. M. Larionov, V. N. Lukin, and S. D. Shulika.* **1989, No. 4, 898 [146].**

Measurement of the Wavelength of a Single High-Power Microwave Pulse. *A. I. Arbuzov, V. A. Vaulin, V. N. Slinko, S. S. Sulakshin, and L. V. Sulakshina.* **1989, No. 6, 1351 [106].**

High-Power Microwave Load. *B. V. Bekhtev and M. I. Kosinov.* **1989, No. 6, 1356 [110].**

Heterodyne System for Measurement of Spectrum of High-Power Nanosecond Microwave Pulse. *V. I. Belousov, G. Yu. Golubyatnikov, A. V. Morev, Yu. V. Rodin, and Yu. M. Shagiev.* **1990, No. 3, 625 [133].**

Differential Modulating Polarimeter for Completely Polarized 3-cm-Band Waves. *V. V. Borisov, O. V. Epifanova, and A. V. Khokhlov.* **1990, No. 4, 854 [129].**

Radio-Frequency Unit of Wideband Multichannel Receiver for Radio-Physics Studies. *L. I. Babak, S. V. Melikhov, M. Yu. Pokrovskii, V. P. Pushkarev, and A. A. Titov.* **1991, No. 5, 1121 [127].**

9.3. Resonators, delay lines

Resonant Microwave Device with Amplitude-Frequency Characteristic Tunable over a Wide Range. *V. D. Bobryshev, V. M. Dmitriev, and N. N. Prentslau.* **1977, No. 5, 1391 [140].**

Multichannel Hybrid Power Splitter for Meter and Decimeter Wavelength Range. *V. S. Mikhailov and D. A. Voronchenko.* **1978, No. 1, 139 [136].**

Stabilizing Resonator of High-Power Klystron Self-Oscillator. *V. I. Beloglazov and L. N. Sdobnova.* **1979, No. 1, 23 [26].**

Waveguide Wavetrap. *N. F. Kavalev, M. G. Reznikov, and Ya. Z. Slutsker.* **1979, No. 1, 126 [120].**

Frequency-Separating Four-Port Ring Network for Wideband rf and shf Channels. *O. V. Alekseev, V. V. Obrovets, and G. G. Chavka.* **1979, No. 2, 469 [165].**

Automatic Meter of the Amplitude–Phase Field Configuration in Open Cavities. *I. V. Ivanchenko.* **1979, No. 3, 760 [135].**

Small-Size Filter in Transcritical Waveguide with Dielectric. *M. N. Berger, B. Yu. Kapilevich, and N. S. Simin.* **1979, No. 3, 770 [145].**

Measurement of High-Frequency Fields in Resonators. *V. L. Auslender and A. D. Panfilov.* **1979, No. 4, 1072 [180].**

Attachment to Automatic Panoramic Devices Measuring Standing Wave Coefficients and Losses. *E. F. Zamora, I. N. Prudius, M. G. Romanyuk, N. N. Gnatchuk, and N. I. Buk.* **1980, No. 1, 165 [161].**

Design of Resonant System of Quantum Detector. *Yu. P. Popkov.* **1980, No. 3, 686 [133].**

Directional Coupler in the Waveguide Channel of a Continuously Operated Microtron. *V. A. Slobodyanyuk and V. M. Kondrat'ev.* **1980, No. 5, 1077 [23].**

3-cm Waveguide Components in Waveguide of Narrow Cross Section. *V. M. Pudalov.* **1981, No. 1, 165 [158].**

Superconducting Wide-Range Tuned System. *F. F. Mende, O. E. Rudnev, and V. D. Sinenko.* **1982, No. 2, 406 [118].**

UHF Oscillator Instability Compensation in a System for Measuring the Field Distribution in a Cavity Resonator. *A. I. Kleev and A. B. Manenkov.* **1982, No. 4, 950 [154].**

Measurement of Q Superconducting Microwave Resonators by the Decrement Method. *V. M. Pudalov.* **1982, No. 4, 957 [160].**

Circuit for Automatic Measurement of UHF Resonator Bandwidth. *E. P. Metsner and A. N. Bogachev.* **1983, No. 1, 124 [107].**

Simple Measurement Method of High Q in Uhf Resonators. *S. P. Vyatchanin and A. V. Timagov.* **1983, No. 4, 901 [145].**

Measuring the Shunt Resistance of Three-Dimensional Resonators and Delay Systems. *A. A. Zavadtsev, B. V. Zverev, N. N. Nechaev, V. V. Ruzin, and N. P. Sobenin.* **1984, No. 2, 263 [13].**

Microwave Waveguide Slot Radiator. *P. Yu. Chumerin.* **1984, No. 5, 1188 [130].**

Broadband Dipole Measuring Antenna. *L. A. Mikhalev, O. V. Ogarenko, and V. A. Tishchenko.* **1985, No. 2, 437 [160].**

Resonator with Magnetic-Field Concentrator for Study of Specimens under Axial Compression. *V. D. Prozorovskii and I. Yu. Reshidova.* **1985, No. 6, 1357 [110].**

Relay-Pulse Automatic Frequency Control for Cavity Resonator. *M. N. Grabois.* **1986, No. 1, 152 [133].**

10-Pole Meter of Complex Reflection Coefficients of Nonlinear Microwave Devices Under Noise Conditions. *A. N. Zaitsev, V. B. Kulikov, and V. I. Pyataev.* **1988, No. 5, 1190 [89].**

Resonator Sensor of Position, Current, and Phase of Electron Beam. *A. S. Alimov, I. V. Gribov, V. A. Korneenkov, V. I. Shvedunov, and A. V. Shumakov.* **1989, No. 3, 520 [28].**

Cryogenic Hypersonic Delay Line for Millimeter-Band Signals. *E. M. Ganapol'skii.* **1991, No. 4, 867 [121].**

9.4. Millimeter- and submillimeter-band techniques

Achromatic Internal Modulation in Polarizing Submillimeter Fourier-Interferometer. *V. I. Lapshin.* **1977, No. 2, 496 [152].**

Microwave Interferometer for Plasma Diagnostics with Fourfold Passage of Signal through Plasma. *V. A. Shcherbov.* **1977, No. 4, 1149 [208].**

Millimeter-Wave Magnetoresistive Pulse-Power Measuring Instrument. *L. I. Kats, E. V. Sinitsyn, and A. Yu. Somov.* **1978, No. 2, 448 [171].**

Use of Low-Inertia Semiconductor Structures to Modulate Radiation in a Submillimeter Laser Interferometer. *D. I. Bilenko, E. A. Zharkova, E. I. Khasina, and D. N. Yundev.* **1978, No. 6, 1575 [107].**

Instrument for Measuring Amplitude-Frequency Characteristics in the Millimeter Band. *A. N. Kozyr'kov, A. D. Oleinikov, and V. V. Pershakov.* **1979, No. 6, 1601 [113].**

Automatic Frequency Stabilizer for a Terahertz Backward-Wave Tube. *S. P. Belov, L. I. Gershtein, V. V. Ilyakhina, A. V. Maslovskii, and V. S. Savel'ev.* **1980, No. 2, 451 [147].**

Submillimeter Waveguide Laser Interferometer for Plasma Diagnostics. *V. A. Epishin, N. G. Pokorkyakho, V. A. Svich, A. N. Topkov, A. S. Urinson, and D. N. Yundev.* **1981, No. 1, 155 [149].**

High-Resolution Interferometer for Low-Temperature Plasma Diagnostics. *A. A. Lisitskaya and E. G. Shustin.* **1981, No. 1, 158 [151].**

Scanning Resonance Quasioptical Millimeter Wave Polarimeter. *A. A. Vertii, I. V. Ivanchenko, and V. P. Shestopalov.* **1981, No. 1, 162 [155].**

Pulse Spectrometer for Millimeter and Submillimeter Ranges. *V. M. Naumenko, V. V. Eremenko, and A. V. Klochko.* **1981, No. 4, 993 [159].**

Synthesizer for Stable SHF Oscillations in the Millimeter Range (up to 80 GHz). *V. G. Gol'dort and V. F. Zakhar'yash.* **1982, No. 6, 1425 [101].**

An IMPATT Diode Generator for the Millimeter Band. *I. M. Angelov, A. S. Yanev, and A. Ya. Spasov.* **1983, No. 2, 380 [128].**

An Electron-Beam Tube for Scanning the Spatial Distribution of an Electromagnetic Field in the Millimeter Band. *Yu. S. Obtemperanskii, Yu. N. Petrov, and V. E. Chaikovskii.* **1983, No. 2, 384 [132].**

Devices for Dielectric Strip-Line Waveguide in the Millimeter and Submillimeter Wavelength Ranges. *L. N. Vershinina and V. V. Meriakri.* **1983, No. 4, 897 [141].**

Pulsed Magnetic-Field Source for Submillimeter Gyrotrons. *S. Ya. Verkhovskii, E. A. Kopelovich, Yu. D. Larichev, A. G. Luchinin, O. V. Malygin, B. Z. Movshevich, V. S. Savin, and F. A. Flat.* **1984, No. 3, 690 [154].**

Visualization of Submillimeter Laser Radiation with a Pyroelectric Television Camera. *A. A. Lash and D. N. Yundev.* **1984, No. 3, 736 [193].**

Submillimeter Quasioptical Homodyne Interferometer for Examining a Plasma with a Low Electron Density. *A. V. Golubev, A. K. Vakar, and É. A. Tischenko.* **1984, No. 6, 1461 [147].**

Millimeter-Band Phase Meter with Rotary Grating. *V. V. Kryzhanovskii and V. P. Shestopalov.* **1986, No. 3, 673 [153].**

Quasioptical Semiconductor Generator with Radial-Waveguide Excitation. *B. M. Bulgakov, V. N. Skresanov, A. I. Fisun, and A. I. Shubnyi.* **1987, No. 1, 123 [114].**

Millimeter-Band Radiometer with Variable Josephson Point Contact. *V. A. Kulikov and L. V. Matveets.* **1987, No. 6, 1412 [123].**

Self-Excited Millimeter-Band Gunn-Diode Oscillator. *I. N. Antonov, Yu. V. Dyatlov, N. A. Kostikov, V. A. Purynzin, and V. I. Shevchenko.* **1988, No. 4, 961 [116].**

Open Millimeter-Band Resonator with Nonmechanical Tuning. *V. V. Sidorin.* **1989, No. 2, 415 [142].**

Orotron-Based Autodyne Receiver for Short-Wave Part of Millimeter Band. *B. S. Dumesh, V. P. Kostromin, V. G. Protsenko, F. S. Rusin, and L. A. Surin.* **1989, No. 3, 634 [129].**

Measurement of Phase-Frequency Spectra with Quasioptical Millimeter- and Submillimeter-Band Backward-Wave-Tube Spectrometers. *A. B. Latyshev, D. A. Luk'yanov, and I. M. Fedotova.* **1990, No. 1, 145 [143].**

Self-Excited Millimeter-Band Oscillator with Radial Resonator. *I. N. Antonov, Yu. V. Dyatlov, N. A. Kostikov, and V. A. Purynzin.* **1990, No. 2, 367 [120].**

8-mm-Band Fourier Spectrometer based on Wideband Josephson Radiometer. *V. A. Il'in, S. S. Kasymov, M. N. Stepanishcheva, K. Z. Fatykhov, and V. S. Etkin.* **1990, No. 4, 851 [126].**

Multichannel 337-μm Heterodyne Interferometer for Plasma Diagnosis. *V. L. Berezhnyi, V. I. Kononenko, O. S. Pavlichenko, A. Ya. Anikeev, V. I. Didenko, V. A. Epishin, V. A. Maslov, V. N. Ryabykh, V. A. Svich, A. N. Topkov, and V. M. Tkachenko.* **1990, No. 5, 1166 [178].**

Optimization of Parameters of Cooled n-InSb Microwave Detectors. *V. B. Lazarev and V. T. Chaikovskaya.* **1991, No. 1, 116 [121].**

Schottky-Barrier-Diode Wideband Submillimeter-Band Modulator. *V. V. Kubarev and V. A. Shemetov.* **1991, No. 5, 1115 [122].**

9.5. Microwave measurements of parameters of materials

Time Domain Spectroscopy of Dielectrics (Survey). *Yu. D. Fel'dman, Yu. F. Zuev, and V. M. Valitov.* **1979, No. 3, 611 [5].**

Apparatus for Investigating Electrooptical Properties of Crystals at Submillimeter Wavelengths. *V. N. Apletalin, V. V. Meriakri, and V. A. Shirokov.* **1977, No. 1, 182 [161].**

Superhigh-Frequency Method of Studying Dielectric Properties of Ferroelectrics in the Vicinity of Phase Transition. *S. V. Baryshnikov, E. V. Bursina, and N. N. Trunov.* **1977, No. 3, 796 [165].**

Resonance Method of Determining Parameters of Magnetodielectric Materials in a Cylindrical Waveguide. *Yu. G. Makeev and V. A. Korobkin.* **1978, No. 1, 142 [139].**

Determination of the Parameters of Anisotropic Dielectrics on the Basis of Resonance of a Waveguide–Dielectric System. *Yu. G. Makeev, V. A. Korobkin, N. I. Pyatak, and N. M. Piven'.* **1978, No. 6, 1569 [104].**

Polarization-Frequency Method for Measuring Dielectric Constant of Film Materials. *A. A. Kalinkevich.* **1980, No. 1, 162 [159].**

Determination of the Direction of the Ellipsoid Axes of the Refractive Index at Microwaves. *V. A. Korobkin, Yu. G. Makeev, N. P. Katrich, L. A. Sozonenko, and V. V. Chizhov.* **1981, No. 4, 990 [156].**

Measurement of Dielectric Constant in the Millimeter Waveband. *V. A. Karpenko and Yu. D. Stolyarov.* **1981, No. 6, 1474 [133].**

A Differential Method of Determining the Absorption Coefficient of a Liquid for Electromagnetic Radiation in the Submillimeter Range. *E. A. Vinogradov, V. D. Gubko, N. A. Irisova, V. N. Podshivalov, and I. L. Semenov.* **1982, No. 3, 752 [210].**

An Orthogonal Phase-Filter Flow Cell for Measuring the Dielectric Constants of Liquids. *A. A. Vertii, V. N. Derkach, I. V. Ivanchenko, and V. P. Shestopalov.* **1984, No. 1, 224 [204].**

Gas Dispersometer for the Millimeter Range. *A. A. Potapov and E. P. Metsner.* **1984, No. 6, 1435 [125].**

Apparatus for Measuring Parameters of Dielectrics in Microwave Region at Temperatures to 2300°K. *S. M. Brekhovskikh, V. V. Dem'yanov, E. B. Zal'tsman, A. V. Litovchenko, and G. A. Smirnov.* **1985, No. 4, 888 [141].**

Measurement of Absorption and Refraction of the Polymer Templene in the Submillimeter Spectral Region. *D. N. Yundev, A. A. Lash, V. M. Grine, V. F. Vasilenko, V. A. Grigor'ev, L. B. Andrianova, J. Bakos, Z. Serlei, and T. Karpati.* **1989, No. 1, 256 [223].**

9.6. Radio spectroscopy

Pulsed Magnetic-Field Gradient Program for Studying Diffusion of Adsorbed Molecules by the Spin-Echo Method. *A. V. Anisimov, A. S. Evarestov, and V. A. Zuikov.* **1978, No. 1, 134 [132].**

Spectrometer for the Investigation of Acoustic Paramagnetic Resonance by Bragg Diffraction of Light. *L. I. Strelets and V. V. Samartsev.* **1978, No. 6, 1567 [102].**

Analog Calculator of the Fourier Transforms for Pulsed NMR Experiments. *A. A. Sukhovskii.* **1979, No. 1, 137 [130].**

Broadband rf Pumping System for an Electron Nuclear Double-Resonance Spectrometer. *Yu. A. Sherstkov, A. I. Rokeakh, and N. V. Legkikh.* **1980, No. 5, 1210 [144].**

Simple Superheterodyne Radiospectrometer. *S. T. Kirillov and Yu. G. Plakhotnikov.* **1981, No. 5, 1244 [137].**

Radio-Frequency Spectrometer for Detecting Weak Spectral Lines. *A. A. Konovalenko.* **1981, No. 6, 1463 [123].**

Magnetic-Resonance Spectropolarimeter for the Millimeter Wavelength Range. *A. A. Vertii, V. N. Derkach, Yu. P. Popkov, and V. P. Shestopalov.* **1983, No. 1, 150 [127].**

Interface for the JRA-5 and SM-3 Computers in an Automated Electron Paramagnetic Resonance Spectrometer. *A. M. Avrutik, G. F. Boronin, A. V. Davydov, I. A. Ishmuratov, A. P. Karpenko, V. V. Kveder, and A. L. Lopatin.* **1983, No. 5, 1075 [70].**

Submillimeter Feedback-Tube Spectrometer for Measuring Superconducting-Film Transmission. *E. M. Gershenzon, G. N. Gol'tsman, and A. D. Semenov.* **1983, No. 5, 1146 [134].**

Spectral Analysis of Spin-Echo Signals. *B. B. Alimbek, A. E. Babenko, and L. P. Kulakova.* **1983, No. 5, 1156 [142].**

Apparatus for Measuring Relaxation Time and Dipole Moments of Molecules in Extremely Weak Solutions. *A. A. Potapov and S. I. Voitov.* **1984, No. 1, 107 [103].**

Wideband Spin-Echo Spectrometer for Magnetically Ordered Materials. *I. V. Starostenko, V. N. Lukashin, M. N. Uspenskii, and V. P. Leonov.* **1984, No. 2, 388 [124].**

Spin-Echo Spectrometer for Ferrimagnetics. *A. V. Kunevich, G. V. Lavrent'ev, M. A. Latyshev, G. D. Pavlov, and V. V. Filippov.* **1984, No. 2, 391 [127].**

Wideband Dielectric Spectrometer. *A. A. Belov and V. A. Khvostikov.* **1984, No. 4, 923 [123].**

Automation of Electron Spin-Lattice Relaxation-Time Measurements. *V. N. Dudkov and V. I. Muromtsev.* **1985, No. 4, 885 [138].**

Submillimeter Backward-Wave-Tube Spectrometer-Relaxometer. *E. M. Gershenzon, G. N. Gol'tsman, and G. I. Mirskii.* **1987, No. 4, 899 [131].**

Sensor of Nuclear Electron Double Resonance with Circular Polarization of Electron-Pump Field. *V. A. Sapunov, A. S. Doroshek, and A. I. Filatov.* **1988, No. 4, 958 [114].**

Registration of Dual Electron-Nuclear Resonance at a Frequency of 35 GHz. *E. E. Tomashevskii and N. G. Kvachadze.* **1988, No. 6, 1497 [112].**

Backward-Wave-Tube Submillimeter Spectrometer–Relaxometer with Picosecond Time Resolution. *É. E. Aksaev, E. M. Gershenzon, G. N. Gol'tsman, G. I. Mirskii, and A. D. Semenov.* **1991, No. 2, 367 [125].**

9.6.1. EPR spectroscopy

Measurement of the Amplitude of an Alternating Magnetic Field by Means of Electron Paramagnetic Resonance. *M. M. Tel'minov, É. É. Perepechai, and M. K. Zvezdin.* **1979, No. 1, 141 [133].**

Magnetic-Field Modulator with Discrete Set of Frequencies for an EPR Radiospectrometer. *V. I. Aleksandrovskii, V. V. Butskii, and V. N. Linev.* **1979, No. 1, 143 [135].**

Improved RÉ-1306 Radiospectrometer for Investigation of Crystals. *S. L. Votyakov, A. A. Krasnobaev, A. B. Gramolin, and A. M. Sukhikh.* **1979, No. 2, 502 [194].**

Attachment to an RÉ-1301 Spectrometer for Studying Materials at Temperatures 120-350°K and Pressures 1-10^4 atm. *A. I. Filippov.* **1979, No. 5, 1428 [218].**

Device for Rapid Scanning of Magnetic Field of EPR Spectrometer. *V. I. Aleksandrovskii, V. N. Linev, and V. V. Lisovskii.* **1979, No. 6, 1598 [110].**

Transmitter of Small EPR Radio Spectrometer. *B. E. Kulikovskii, V. H. Linev, and E. Ya. Fursa.* **1980, No. 6, 1436 [114].**

Adjustment of an Electron Magnetic Spectrometer. *I. N. Shabanova, V. P. Sapozhnikov, V. Ya. Bayankin, and V. G. Bragin.* **1981, No. 1, 144 [138].**

A Facility for Investigating Nonequilibrium Spin States by Electron Spin Resonance. *I. Z. Rutkovskii and G. G. Fedoruk.* **1981, No. 2, 454 [158].**

Electromagnetic Current Stabilization in the ER-9 ESR Spectrometer. *I. M. Batyaev.* **1982, No. 2, 408 [120].**

Use of a Spiral Fitting in Observing Nonstationary ESR Signals. *Yu. F. Panerov, O. Ya. Grinberg, A. A. Dubinskii, and Ya. S. Lebedev.* **1982, No. 4, 949 [153].**

VHF Circuit in a Nonmodulating Electron Paramagnetic Resonance Spectrometer. *V. V. Isaev-Ivanov, V. V. Lavrov, and V. N. Fomichev.* **1983, No. 1, 127 [110].**

SHF Channel of EPR Spectrometer with Detector Protection. *G. A. Zhizhchenko and L. V. Tsvirko.* **1983, No. 5, 1150 [137].**

An Automated System for Investigations of the Temperature Dependence of the Electron Spin-Lattice Relaxation Time. *V. N. Dudkov and V. I. Muromtsev.* **1984, No. 2, 302 [44].**

Automatic RÉ-1306 Radiometer Control System Based on an "Iskra-1256" Microcomputer. *M. I. Trofimov.* **1984, No. 2, 385 [122].**

Superheterodyne Channel of Microwave EPR Spectrometer. *V. F. Stel'makh and L. V. Tsvirko.* **1986, No. 5, 1127 [131].**

Increasing the Performance of EPR Spectrometers with Gunn Oscillators. *V. A. Dobrov, V. Z. Drapkin, K. V. Zaitsev, Yu. A. Makarov, R. S. Maron, A. S. Serdyuk, S. D. Uman, and V. A. Yanchurov.* **1986, No. 5, 1130 [133].**

Apparatus for Study of Electron Paramagnetic Resonance under Conditions of High Pressure and Shear. *A. A. Dadali, V. A.*

Shanditsev, I. P. Lastenko, and A. L. Buchachenko. **1987, No. 4, 906 [137].**

EPR Tomography with Rotation of Magnetic-Field Gradient. *A. I. Smirnov, E. N. Degtyarev, O. E. Yakimchenko, and Ya. S. Lebedev.* **1988, No. 2, 374 [100].**

Apparatus for Production of Modulated Electron Beam in Electromagnet Gap of EPR Spectrometer for Study of Radiation-Chemical Reactions in Aqueous Solutions. *V. A. Ryzhov, V. A. Solov'ev, V. V. Turutin, and V. N. Fomichev.* **1988, No. 3, 772 [212].**

Traveling-Wave Electron Paramagnetic Resonance Spectrometer for 75-220 GHz. *K. V. Vorsul', T. A. Smirnova, B. K. Skrynnik, I. D. Revin, E. A. Khan, and N. T. Cherpak.* **1989, No. 6, 1358 [111].**

EPR Tomography with High Space Resolution Using Inserts of Magnetically Soft Materials. *A. I. Smirnov, E. N. Degtyarev, O. E. Yakimchenko, and Ya. S. Lebedev.* **1991, No. 1, 202 [195].**

9.6.2. NMR spectroscopy

High-Resolution NMR Spectrometer for Solid-State Research. *L. N. Erofeev, O. D. Vetrov, B. A. Shumm, M. Sh. Isaev, and G. B. Manelis.* **1977, No. 2, 488 [145].**

Two-Mode Hybrid Resonator for Study of Nonlinear Effects. *R. P. Devyaterikov, V. V. Isaev-Ivanov, V. A. Ryzhov, and V. N. Fomichev.* **1977, No. 2, 501 [157].**

High-Pressure Chamber for Nuclear Quadrupole Measurements on ISSh-1 Spectrometer. *V. L. Serebrennikov and A. K. Moskalev.* **1977, No. 4, 1122 [183].**

Null Line Stabilizer for a Nuclear Magnetic Resonance Spectrometer with Time Division. *V. A. Zabrodin, K. A. Tikhonov, and A. S. Mel'nikov.* **1977, No. 5, 1401 [147].**

NMR Frequency-Ratio Spectrometer for Studying Isotopic Effects of Light Nuclei. *Yu. I. Neronov and Yu. P. Mikhailichenko.* **1978, No. 1, 127 [125].**

Broadband Preamplifier for a Nuclear-Magnetic-Resonance Pulsed Spectrometer. *B. I. Cherkasov and G. I. Dotsenko.* **1978, No. 3, 710 [148].**

Extension of the Nuclear-Magnetic-Resonance Capabilities of the Varian HA-100D Spectrometer. *Yu. Yu. Samitov and A. I. Khayarov.* **1978, No. 4, 1030 [171].**

Shims x, y, xz, yz in the Form of Flat Conductors of Nuclear-Magnetic-Resonance Radiospectrometers of High Resolution. *A. A. Lukhvich and V. R. Churilo.* **1978, No. 4, 1032 [173].**

Spectrometer for Nuclear Magnetic Resonance in Internal Fields of Ferromagnets for the Frequency Range 10-230 MHz. *A. N. Babenko.* **1978, No. 6, 1563 [99].**

Device for Measuring the Lifetimes of Nuclear Levels with an On-Line Computer. *B. A. Alikov, Ya. Vavryshchuk, Z. V. Krumshtein, K. M. Muminov, T. M. Muminov, R. R. Usmanov, F. Kh. Khamraev, G. Khemnaits, and N. N. Khovanskii.* **1979, No. 2, 378 [83].**

Generator for Sweeping of Magnetic Field in Broad-Line NMR Spectrometers. *A. G. Khandozhko, V. N. Ermakov, and E. I. Slyn'ko.* **1980, No. 1, 128 [129].**

Regenerative High-Resolution NMR Spectroscopy. *Yu. S. Konstantinov and A. M. Smirnov.* **1980, No. 2, 447 [143].**

Modulator for Pulsed Nuclear Magnetic Resonance Spectrometer. *G. E. Kibrik.* **1980, No. 3, 701 [147].**

Wide-Range Fourier Spectrometer to Study the NMR of Rare Isotopes in Crystals. *A. G. Lundin, S. P. Prozorov, and A. A. Sukhovskii.* **1980, No. 5, 1212 [145].**

High-Resolution Relaxometer for Relaxation-Time Measurements of Individual Lines in the NMR Spectrum. *R. Kh. Sadykov, A. I. Khayarov, and Yu. Yu. Samitov.* **1980, No. 5, 1251 [148].**

Automation of Measurements in Pulsed NMR Experiments. *A. N. Temnikov and V. D. Fedotov.* **1980, No. 5, 1218 [151].**

High-Temperature Detector for a Pulsed NMR Spectrometer. *F. F. Gubaidullin, A. N. Gil'manov, and E. E. Savin.* **1980, No. 5, 1223 [155].**

Magnet for a Portable NMR Spectrometer. *B. E. Rytsar and P. M. Soprunyuk.* **1980, No. 5, 1285 [212].**

Switched Receiver and Transducer for an NMR Spectrometer Covering the 0.5-10-MHz Range. *V. I. Privalov and V. P. Tarasov.* **1981, No. 1, 148 [142].**

Low-Temperature Autodyne for NMR Magnetic Field Measurements. *Yu. V. Zakharov, I. N. Kvitko, and V. I. Raitsis.* **1981, No. 2, 448 [151].**

Pulsed Coherent Nuclear Magnetic Resonance Spectrometer. *A. F. Babkin, A. V. Rusanov, and I. V. Guseva.* **1981, No. 2, 450 [154].**

Wideband Voltage Amplifier for Nuclear Magnetic Resonance Pulse Spectrometers. *O. D. Vetrov.* **1981, No. 3, 707 [132].**

Magnetic Field Stabilizer for Nuclear Magnetic Resonance Pulse Spectrometers. *L. N. Erofeev, V. P. Tarasov, and B. A. Shumm.* **1981, No. 3, 709 [133].**

Tracking Nuclear Magnetic Resonance Magnetometer with Digital Readout in Gauss. *A. E. Pryakhin.* **1981, No. 6, 1467 [127].**

NMR Relaxometer Transducer with Magnetic-Field Pulse Gradient Coil. *V. A. Sevryugin and V. D. Skirda.* **1982, No. 5, 1165 [112].**

Transmitter for a Coherent Pulse NMR Spectrometer. *A. F. Babkin and A. V. Rusanov.* **1983, No. 1, 130 [112].**

Improving the Signal-to-Noise Ratio of a ^{13}C NMR Spectrometer Operating with Heteronuclear Proton Suppression. *Yu. N. Lib.* **1983, No. 3, 629 [126].**

Isochronous Experiments on Nuclear Magnetic Resonance in Liquids. *Z. Sh. Idiyatullin, F. M. Samigullin, V. P. Arkhipov, and N. K. Gaisin.* **1984, No. 3, 685 [150].**

System for Stabilizing Resonance Conditions in Portable NMR Instruments. *P. M. Soprunyuk and Ya. S. Michuda.* **1984, No. 5, 1189 [131].**

Analyzer for Pulse NMR Spectrometers. *B. E. Rytsar.* **1984, No. 5, 1191 [133].**

Pickup for Pulse NMR Spectrometer. *V. N. Zaitsev and A. K. Podsekin.* **1985, No. 1, 137 [126].**

Automatic Nuclear-Quadrupole-Resonance Measurements Using an Élektronika D3-28 Microcomputer. *A. A. Boguslavskii, V. V. Pechenov, and G. Ya. Shapiro.* **1985, No. 2, 426 [150].**

Autodyne NMR Sensor with Phase Automatic Frequency Control. *G. E. Kibrik and V. V. Razumov.* **1985, No. 4, 882 [135].**

Attachment to Multipulse NMR Spectrometer for Observing Nuclear Quadrupole Resonance Signals of ^{14}N Nuclei. *K. V. Ermolaev, V. P. Tarasov, and L. N. Erofeev.* **1985, No. 6, 1359 [112].**

Sensitive Continuous-Action Decimeter-Band Nuclear Magnetic Resonance Spectrometer. *B. S. Dumesh.* **1986, No. 1, 154 [135].**

Effect of Resonance-Line Shape on Precision Measurements of Nuclear Magnetic Resonance Shifts. *A. M. Kachurin and A. Ya. Smelyanskii.* **1986, No. 1, 157 [138].**

Wideband Transmitter for Pulse NMR Spectrometer. *E. M. Ryskin, I. P. Amiton, A. Yu. Batyr', and V. G. Lavrushenkov.* **1986, No. 2, 423 [145].**

Improvement of NMR Sensor for Cryomagnets. *M. A. Fedotov.* **1986, No. 3, 754 [224].**

General-Purpose Autodyne with Precision Calibrator. *I. I. Sadykov.* **1986, No. 4, 877 [115].**

System for Automatic Measurement of Nuclear Magnetic Resonance and Spin-Lattice Relaxation of Oriented Radioactive Nuclei. *P. Cizek, V. N. Pavlov, M. Finger, M. Rotter, B. Sedlak, I. Englich, and J. Dupak.* **1986, No. 5, 1040 [53].**

Sources of Polarizing Magnetic Fields and Their Gradients for NMR Tomography (Review). *A. A. Lukhvich and V. R. Churilo.* **1987, No. 5, 1208 [172].**

Spectrometer with Direct Recording of Nuclear Magnetic Resonance in a Rotating Coordinate System. *A. E. Mefed.* **1988, No. 1, 151 [131].**

Autodyne Detector for Study of Nuclear Magnetic Resonance and Size Effects in Semiconductors. *A. G. Khandozhko, E. I. Slyn'ko, and I. P. Chernysh.* **1988, No. 5, 1217 [110].**

Automated Measurement of Nuclear Relaxation Times. *A. G. Geist and R. K. Mazitov.* **1988, No. 6, 1501 [115].**

Amplifier Channel for Pulse NMR Spectrometer. *A. F. Babkin, I. P. Biryukov, A. B. Volkov, and V. L. Makarenko.* **1989, No. 4, 895 [144].**

Orientation Modulator of Resonance Conditions for Broad-Line NMR Spectrometers. *B. F. Alekseev, A. I. Mamykin, E. A. Sizova, and A. B. Tikhonov.* **1990, No. 6, 1430 [181].**

Q-Meter with Digital Recorder for Measurement of Nuclear Polarization. *Yu. F. Kiselev, A. M. Sirunyan, and S. S. Stepanyan.* **1991, No. 1, 93 [99].**

Accumulation of NMR Signals in BS-487 High-Resolution Spectrometer. *G. N. Zagitov, M. Kh. Zeleev, I. A. Valiakhmetov, and R. S. Nasibullin.* **1991, No. 4, 965 [206].**

9.6.3. NQR and NAR spectroscopy

Autodyne Detector of Acoustic Nuclear Magnetic Resonance. *I. I. Sadykov.* **1978, No. 1, 131 [129].**

Amplifier–Generator for Nuclear Acoustic Resonance Spectrometer. *I. I. Sadykov.* **1978, No. 6, 1555 [92].**

Chlorine Nuclear Quadrupole Resonance with Exact Reading of the Resonant Frequency. *N. V. Anisimov, N. N. Dzbanovskii, and Yu. S. Konstantinov.* **1979, No. 1, 135 [128].**

Pump Generator for a Double Nuclear-Quadrupole Resonance Spectrometer to Irradiate Quadrupolar Nuclei. *V. P. Anferov and V. M. Mikhal'kov.* **1981, No. 3, 656 [89].**

Frequency-Pulling Superregenerator for Observing NQR. *O. N. Bryukhanov and T. N. Rudakov.* **1982, No. 4, 947 [151].**

A Wide-Band Power Amplifier for a Pulsed NQR Spectrometer. *A. S. Azheganov and A. V. Danilov.* **1982, No. 5, 1162 [109].**

Fast-Recovery Probe for Double Nuclear Quadrupole Resonance Spectrometer. *V. P. Anferov and V. M. Mikhail'kov.* **1984, No. 1, 163 [148].**

Relaxation Measurements of Weak Nuclear-Quadrupole-Resonance Signals Using an ISSh-1-12 Spectrometer with a "Sigma" Digital Storage Device. *V. N. Chernyavskii and G. I. Konstantinov.* **1984, No. 5, 1194 [136].**

Wideband Transmitter for Pulse NQR Spectrometer. *V. V. Fedotov, G. V. Mozzhukhin, and G. S. Kupriyanova.* **1986, No. 3, 675 [155].**

Measurement of Resonator Quality Factor in a Spectrometer for Nuclear Acoustic Resonance. *I. I. Sadykov.* **1987, No. 3, 647 [135].**

High-Speed Accumulator of Nuclear Quadrupole Resonance Signals. *V. P. Anferov, S. V. Molchanov, and O. D. Levchun.* **1988, No. 5, 1175 [76].**

Wideband Power Amplifier for Pulse Nuclear Quadrupole Resonance Spectrometer. *A. S. Azheganov and A. V. Danilov.* **1988, No. 5, 1212 [106].**

Wideband Transmitter for Low-Frequency Nuclear Quadrupole Resonance Spectrometer. *A. V. Belyakov, T. N. Rudakov, and V. V. Fedotov.* **1989, No. 2, 413 [140].**

Frequency Synthesizer for Pulse Nuclear Quadrupole Resonance Spectrometer. *V. P. Anferov, S. D. Koblev, and V. G. Kuznetsov.* **1989, No. 6, 1361 [113].**

9.6.4. Special-purpose circuits for radio spectrometers

Reference-Signal Shaper for Low-Frequency Module of Spectrometer. *V. A. Mishin and Yu. D. Samokhin.* **1977, No. 2, 491 [148].**

Recording Unit for Electron Paramagnetic Resonance (EPR) Signals at Modulation Frequency of a Magnetic Field. *S. S. Vetokhin, N. I. Kotovich, and V. N. Linev.* **1978, No. 1, 137 [134].**

Synchronous Detector for an Electron-Spin-Resonance Spectrometer. *V. N. Linev and V. B. Mochal'skii.* **1978, No. 2, 444 [167].**

Control-Pulse Shaper for a Microwave Spectrometer. *A. V. Rusanov, A. F. Babkin, and A. N. Yazov.* **1978, No. 3, 696 [136].**

Pulse Shaper for Diffusion Measurement by the Spin-Echo Method. *V. S. Belkin and Yu. G. Kriger.* **1978, No. 4, 990 [136].**

Intermediate-Frequency Amplifier of an EPR Spectrometer. *V. N. Linev and V. B. Mochal'skii.* **1979, No. 4, 1043 [155].**

An Adjustable Shaper for the Envelope of a Radiofrequency Pulse. *Yu. A. Azarnyi and E. I. Kachanov.* **1980, No. 1, 125 [126].**

Control Unit for Magnetic Field of Electron Paramagnetic Resonance Spectrometer. *V. I. Aleksandrovskii, V. N. Linev, and V. V. Lisovskii.* **1980, No. 6, 1432 [110].**

Linear Scan Generator for Magnetic Resonance Spectra. *L. L. Dekabrun, Yu. N. Kil'yanov, and D. A. Moskalev.* **1981, No. 1, 147 [141].**

Digital Pulse Train Generator for Magnetic Resonance Spectrometers. *O. M. Kaplun, G. E. Kibrik, A. S. Kim, and V. A. Klochkov.* **1981, No. 4, 969 [137].**

Wide-Band High-Power Coherent rf Pulse Generator. *V. M. Berezov and V. S. Romanov.* **1981, No. 6, 1461 [121].**

Programmable Pulse Sequence Generator for Nuclear Magnetic Resonance Pulse Spectroscopy. *V. M. Sokolovskii, V. A. Tyurin, and V. V. Kurenev.* **1983, No. 3, 626 [124].**

Pulse-Position Modulator for a Microwave Spectrometer. *A. V. Danilov and A. K. Mel'nikov.* **1983, No. 5, 1153 [139].**

Computer-Controlled Time-Interval Generator for Pulse EPR Relaxometer. *S. D. Safonov, V. N. Dudkov, I. V. Nyrtsov, V. I. Muromtsev, V. G. Ivanov, and V. N. Sukharev.* **1985, No. 6, 1361 [114].**

Program Generator for Experiments in Nuclear Magnetic Resonance. *A. F. Babkin, V. K. Kuznetsov, V. L. Makarenko, and A. V. Rusanov.* **1986, No. 1, 114 [106].**

Programmable Magnetic-Field Modulator for Microwave EPR Spectrometer. *V. P. Lapitskii, G. I. Rombak, Li Hong Tau, and V. P. Yanovskii.* **1986, No. 2, 426 [148].**

Radio-Pulse Shaper. *Yu. K. Sidorov.* **1988, No. 3, 635 [101].**

9.6.5. Attachments to spectrometers

Ampul for a Liquid Sample for NMR Studies under Pressure. *V. P. Arkhipov and F. M. Samigullin.* **1978, No. 2, 533 [251].**

Thermostatically Controlled Resonant Cell for the Investigation of Nuclear Magnetic Resonance. *E. Yu. Medvedev and V. P. Suetin.* **1978, No. 4, 1132 [263].**

Unit for Uniaxial Deformation of Crystals in the Resonator of a Radiospectrometer. *S. A. Omel'chenko and S. A. Kulikov.* **1978, No. 6, 1639 [163].**

Rectangular Resonator in the 3-cm Range for Observation of Double Electron-Nuclear Resonance. *V. P. Meiklyar, M. L. Falin, and B. S. Él'man.* **1979, No. 4, 1075 [183].**

Attachment to the RYa-2308 Radiospectrometer for Studying Double Magnetic Resonance. *P. A. Vasil'ev, V. G. Petrov, P. O. Okulevich, and A. N. Glebov.* **1979, No. 4, 1077 [184].**

Monoaxial Compression of a Crystal in a Low-Temperature, Millimeter-Range EPR Spectrometer. *S. N. Lukin and G. A. Tsintsadze.* **1980, No. 1, 170 [166].**

System for Transporting a Sample in a Double Nuclear-Quadrupole-Resonance Spectrometer. *V. P. Anferov, V. S. Grechishkin, and V. M. Mikhal'kov.* **1981, No. 6, 1549 [199].**

Fluid Temperature Control System for Flow NMR Experiments. *S. I. Selivanov, R. A. Bogatkin, and B. A. Ershov.* **1983, No. 2, 401 [147].**

Apparatus for Pulse Photolysis in a Nuclear Magnetic Resonance Spectrometer. *A. Z. Yankelevich, V. F. Pikel'ni, V. K. Potapov, V. V. Vetrov, N. N. Shapet'ko, and A. D. Pershin.* **1983, No. 3, 623 [121].**

Rectangular Resonator for Studying Electron-Nuclear Double Resonance. *A. L. Kon'kin, V. P. Meiklyar, and M. L. Falin.* **1984, No. 3, 688 [152].**

Attachment for Spatial Orientation of Crystals in the Resonator of an Electron Spin Resonance Spectrometer. *E. P. Zheglov.* **1984, No. 3, 778 [228].**

Attachment to RÉ-1306 Spectrometer for Studying Axial Compression. *V. N. Vasyukov.* **1984, No. 4, 917 [117].**

Low-Temperature Vacuum Resonator for IRES-1001 and IRES-1003 EPR Spectrometer-Relaxometers. *V. V. Troitskii, V. N. Dudkov, V. I. Muromtsev, and V. G. Cheredintsev.* **1985, No. 2, 433 [156].**

Circuit for Regulation and Measurement of Specimen Temperature for Circulating Thermostat of Nuclear Magnetic-Resonance Spectrometer. *A. I. Khayarov, A. V. Aganov, L. B. Zheltukhin, and Yu. Yu. Samitov.* **1985, No. 2, 435 [158].**

Sensor for NMR Spectrometer for Study of Photochemical Processes. *E. D. Skakovskii, A. Z. Yankelevich, and S. V. Rykov.* **1988, No. 1, 158 [137].**

Resonance Cells for Millimeter-Band Spectrometer Operating at T < 1 K. *A. A. Vertii, G. A. Zvyagina, I. V. Ivanchenko, N. A. Popenko, S. I. Tarapov, and V. P. Shestopalov.* **1988, No. 2, 381 [107].**

Low-Temperature Attachment to RE-1308 EPR Spectrometer. *A. P. Volodin and A. A. Sorokin.* **1990, No. 3, 721 [215].**

Waveguide Cell for Millimeter-Band Spectrometer with Stark Modulation and Double-Resonance Modulation. *Ch. O. Kadzhar, S. A. Musaev, and É. Ch. Saidov.* **1991, No. 4, 925 [171].**

3-cm-Band Loop–Gap Resonator for Spin-Echo Spectrometer and Laser EPR Spectrometer. *I. A. Gromov, S. B. Orlinskii, and R. M. Rakhmatullin.* **1991, No. 5, 1104 [113].**

Wideband Resonator for Microwave Spectroscopes. *S. A. Katrich and V. A. Popov.* **1991, No. 5, 1107 [116].**

10. PHOTOELECTRON AND ELECTRON CONVERTERS

10.1. Photomultipliers

High-Current Photomultiplier with Disk-Type Electrode Leads. *A. G. Berkovskii, A. I. Veretennikov, Yu. I. Gubanov, V. G. Gusel'nikov, A. N. Sushchenko, and O. T. Chernyakova.* **1977, No. 2, 518 [172].**

Photosensor with Logarithmic Transfer Characteristic. *V. P. Snykov and N. D. Tret'yakov.* **1978, No. 4, 1069 [206].**

Recording of Weak Light Signals in the 1.0-1.2-μm Wavelength Band. *L. R. Vodop'yanov, L. V. Golubev, V. D. Kopanev, and V. G. Plotnichenko.* **1979, No. 5, 1397 [191].**

Diode Arrays for Detecting Photoelectrons. *V. D. Alekseev, V. G. Debur, V. P. Zabrodskaya, and V. S. Rylov.* **1982, No. 1, 195 [172].**

Device for Identifying Particles from Photomultiplier Pulseforms. *N. N. Shchadin.* **1982, No. 3, 686 [157].**

Use of FÉU-49B Photomultipliers for Quantitative Large-Range Analysis of Fluxes of Short Light Flashes. *V. G. Alalykin, S. B. Gavshin, I. A. Danil'chenko, A. A. Petrukhin, G. A. Potapov, and I. I. Yashin.* **1984, No. 4, 944 [140].**

Optimizing, the One-Electron Sensitivity of an Image Dissector. *S. S. Vetokhin, I. R. Gulakov, Yu. V. Pislyak, and I. V. Reznikov.* **1984, No. 4, 946 [142].**

Photoelectron Converter. *V. G. Debur, V. M. Kogan, A. M. Mechetin, V. S. Rylov, and N. A. Shakhraman'yan.* **1986, No. 3, 691 [171].**

Photomultiplier with Microchannel Plates and Matrix Anode. *V. P. Volkov, B. M. Glukhovskoi, N. M. Selivanchik, and I. F. Yaroshenko.* **1990, No. 6, 1372 [133].**

New Photocathodes for Radiation with a Wavelength of ~100 Å. *A. L. Andrushchenko, A. M. Pavlov, V. N. Shchemelev, V. A. Podvyaznikov, A. M. Prokhorov, and V. K. Chevokin.* **1991, No. 3, 625 [137].**

Coordinate-Sensitive Microchannel Plate Photomultiplier. *V. P. Volkov, B. M. Glukhovskoi, N. M. Selivanchik, and I. F. Yaroshenko.* **1991, No. 5, 1140 [144].**

10.1.1. Single-electron and hodoscopic photomultipliers

Hodoscopic Photomultipliers and Their Use in Particle Detectors (Survey). *V. G. Vasil'chenko and V. I. Rykalin.* **1987, No. 1, 1 [7].**

GFÉU-30 Hodoscopic Photomultiplier. *V. G. Vasil'chenko, V. G. Lapshin, E. A. Monich, A. I. Ronzhin, and V. I. Rykalin.* **1978, No. 4, 1043 [183].**

Optimization of the Signal/Noise Ratio and of the Stability of Single-Electron Photomultipliers. *S. S. Betokhin, I. R. Gulakov, and Yu. V. Pislyak.* **1978, No. 6, 1589 [119].**

One-Electron Characteristics of FÉU-119 Photomultiplier. *S. S. Vetokhin, I. R. Gulakov, and Yu. V. Pislyak.* **1980, No. 5, 1251 [182].**

One-Electron Pulse Selector Circuit for Photon Counting Systems. *Ya. É. Tiberg and V. N. Paulauskas.* **1980, No. 5, 1252 [183].**

Photomultiplier Selection for Ultraweak Chemiluminescence. *Yu. L. Zherebin and V. M. Sava.* **1980, No. 6, 1457 [133].**

Use of the FÉU-49 Photomultiplier in the Single-Electron Mode. *A. V. Kulikov and S. V. Trusov.* **1981, No. 3, 737 [161].**

Photon-Counting System for Correlation Amplitude Measurements. *A. M. Evtyushenkov, Yu. F. Kiyachenko, G. I. Olefirenko, and I. K. Yudin.* **1981, No. 5, 1265 [157].**

Features of the Single-Electron Characteristics of FÉU-115 Photomultipliers. *V. P. Bobrovich, S. S. Vetokhin, and I. R. Gulakov.* **1981, No. 5, 1272 [162].**

Statistical Characteristics or Single-Electron Photoreceivers. *S. S. Vetokhin, I. R. Gulakov, E. V. Klokova, and F. P. Pivovar.* **1982, No. 3, 693 [162].**

Method for Selecting Photomultipliers for Weak Signal Recording. *O. A. Bukin, S. Yu. Stolyarchuk, and V. A. Tyapkin.* **1982, No. 5, 1209 [144].**

High-Voltage Limit of Counting-Response Plateau of One-Electron Photomultipliers. *S. S. Vetokhin, I. R. Gulakov, and Yu. V. Pislyak.* **1982, No. 6, 1451 [123].**

Measurement of Light Intensity by Counting One-Electron Photomultiplier Pulses. *S. A. Mishin.* **1982, No. 6, 1453 [125].**

Estimate of the Parameters of Photomultipliers Operating in the Photon-Counting Regime. *L. V. Granitskii, N. I. Bukach, L. I. Andreeva, Z. M. Semichastnova, and B. M. Stepanov.* **1982, No. 6, 1456 [127].**

Characteristics of the FÉU-112 Photomultiplier with Oxygen-Silver-Cesium Photocathode in the Photon Count Mode. *E. A. Lebedev and V. I. Markov.* **1984, No. 5, 1211 [151].**

Hodoscopic Photomultipliers with Increased Space Resolution. *V. G. Vasil'chenko, V. N. Evdokimov, V. E. Rakhmatov, V. B. Rakhmatova, and V. I. Rykalin.* **1985, No. 6, 1382 [132].**

Single-Electron Characteristics of GFÉU-30 Hodoscopic Photomultipliers. *V. G. Vasil'chenko, A. A. Volkov, V. N. Evdokimov, A. O. Efimov, V. R. Rakhmatov, A. I. Ronzhin, and V. I. Rykalin.* **1986, No. 2, 448 [167].**

Use of FÉU-112 for Photon Counting. *V. P. Bobrovich, S. S. Vetokhin, I. R. Gulakov, and N. A. Ineev.* **1986, No. 3, 687 [167].**

Single-Electron Characteristics of FÉU-83 with Local Photocathode Illumination. *R. I. Bagduev, K. S. Zhuravlev, and A. S. Terekhov.* **1986, No. 4, 895 [130].**

Design of Ultralow-Noise Photomultipliers. *A. A. Kataev.* **1989, No. 3, 657 [147].**

Single-Electron Characteristics of Compact Photomultipliers. *O. A. Grachev and A. I. Ronzhin.* **1989, No. 4, 932 [176].**

Suppression of Single-Electron Noise of Photomultipliers in Scintillation Counters. *Yu. P. Guz, V. V. Lapin, V. G. Lapshin, A. I. Peresypkin, V. I. Rykalin, and V. T. Skripkina.* **1990, No. 1, 167 [161].**

Single-Electron Characteristics of FÉU-147 Photomultipliers. *B. M. Glukhovskoi and I. F. Yaroshenko.* **1990, No. 3, 651 [156].**

Charge Distribution of Single-Electron Anode-Current Pulses of FÉU-106 Photomultiplier. *I. E. Zalesskii.* **1990, No. 4, 913 [178].**

Photon-Counting Characteristics of FÉU-147-3. *A. A. Azlyarov, Yu. V. Baranov, B. M. Glukhovskoi, A. Sh. Gongadze, A. K. Kasymov, Z. G. Nizamutdinov, and I. K. Rasulov.* **1990, No. 6, 1367 [129].**

10.1.2. Photomultipliers for spectrometry and photometry

Some Characteristics of Photomultiplier with GaP First Dynode in Chemiluminescence Counters. *I. R. Aleksandrov, N. V. Dunaevskaya, O. I. Ivanov, I. M. Karnaurkh, A. A. Ostapenko, S. M. Pel'tek, and G. B. Stuchinskii.* **1977, No. 2, 523 [176].**

Parameters of FÉU-118 Photomultiplier in Spectrometric Mode. *O. P. Sobornov.* **1977, No. 5, 1419 [162].**

Controlled Photomultiplier for the Measurement of Optical Spectra. *K. N. Kasparov and V. N. Staroverova.* **1978, No. 4, 1048 [187].**

Comparison of the Spectrometric Characteristics of the FÉU-110, FÉU-139, and RCA-4524 Photomultipliers. *S. D. Kalashnikov and V. L. Krivoshein.* **1982, No. 4, 990 [190].**

Influence of the Angular Dependence of Photocathode Sensitivity upon the spectrometric Properties of Photomultipliers. *N. G. Kravchenko, E. P. Sysoeva, and Yu. A. Tsirlin.* **1983, No. 1, 154 [130].**

Widening the Dynamic Range of a Photomultiplier in Kinetic Spectrophotometry. *V. K. Rumas.* **1983, No. 3, 647 [143].**

Relation between Photomultiplier Spectrometric and Intensity-Response Characteristics. *S. D. Kalashnikov and A. N. Zhukova.* **1983, No. 4, 937 [176].**

A Gated Photodetector. *V. G. Oshlakov.* **1984, No. 1, 184 [169].**

Selection of FÉU-84-3 Photomultipliers for Pulse Photometers According to Single-Electron Characteristics. *V. P. Bobrovich, V. V. Butskii, and S. S. Vetokhin.* **1986, No. 4, 897 [132].**

FÉU-140 Photomultipliers in Pulsed Plasma Spectroscopy. *M. S. Arteev and S. S. Sulakshin.* **1987, No. 3, 655 [142].**

Spectral Response of some Types of Photomultipliers. *V. N. Evdokimov, V. A. Polyakov, and V. I. Rykalin.* **1987, No. 4, 921 [151].**

Spectrometric Characteristics of Photomultipliers Based on Microchannel Plates. *M. R. Ainbund, A. I. Ivanov, G. A. Isaak'yan, I. F. Uchevatkin, and V. M. Frolov.* **1988, No. 1, 187 [161].**

10.1.3. Photomultipliers for time measurements

Time Characteristics of FÉU-62 and FÉU-28 Photomultipliers. *S. S. Betokhin, V. I. Karas', V. M. Lomako, and I. V. Reznikov.* **1977, No. 4, 1153 [212].**

Nanosecond Pulse Control of an FÉU-30. *N. N. Beglyakov, V. K. Lyapidevskii, V. A. Prorvich, and A. N. Furazhkin.* **1980, No. 6, 1455 [131].**

Distinctive Features of Time Responses of FÉU-100 Photomultipliers. *S. S. Vetokhin, I. R. Gulakov, A. P. Nechai, and I. V. Reznikov.* **1981, No. 3, 740 [163].**

Photon-Counting Use of an FÉU-71 for Research on Dynamic Processes in the Nanosecond Range. *Yu. M. Aleksandrov, V. N. Makhov, T. I. Syreishchikova, and M. N. Yakimenko.* **1982, No. 1, 190 [168].**

Time Resolution of the FÉU-36 Photomultiplier. *E. B. Klopikov, S. V. Svirida, and A. N. Semenikhin.* **1982, No. 2, 436 [144].**

Use of FÉU-85 Photomultipliers in Timing Measurements. *D. Yu. Akimov and V. T. Samoilenko.* **1983, No. 4, 939 [178].**

Investigation of the Time Characteristics of FÉU-130 Photomultipliers in Photon Counting. *Yu. N. Zyuzin and V. V. Kurbasov.* **1984, No. 4, 940 [137].**

Aftereffect in FÉU-106 Photomultipliers Used for Time Measurements. *F. A. Ermalitskii and V. M. Lutkovskii.* **1984, No. 4, 942 [138].**

Comparison of Grounded-Anode and Grounded-Photocathode Operation of FÉU-130. *I. R. Gulakov.* **1984, No. 6, 1467 [152].**

Measurement of Spread of Transmission Times of Single-Photoelectron Signals Through FÉU-49B Photomultiplier. *L. B. Bezrukov and B. A. Borisovets.* **1988, No. 1, 178 [154].**

Optimization of Time Characteristics of Photomultipliers for Kinetic Single-Quantum Spectrometers. *S. M. Dmitriev.* **1988, No. 1, 181 [156].**

Photomultipliers with Subnanosecond Time Resolution for Near Infrared Region. *A. V. Alekseev, L. I. Andreeva, Yu. M. Kalinin, G. V. Kozlova, M. A. Makedontsev, and T. M. Malinina.* **1988, No. 5, 1261 [144].**

High-Speed Photodetector with Automatic Sensitivity Control. *N. V. Shiyanov.* **1988, No. 5, 1263 [146].**

Optimization of Parameters of Strobed FÉU-144 Photomultiplier for Registration of Nanosecond Radiation Pulses with a Strong Light Background. *Yu. V. Pislyak.* **1989, No. 1, 203 [178].**

Space-Time Characteristics of FÉU-157 Single-Electron Photomultipliers with GaAs-CsO Single-Crystal Photocathodes. *E. S. Voropai, F. A. Ermalitskii, T. N. Pal'ts, A. F. Chernyavskii, and V. A. Shevtsov.* **1990, No. 1, 161 [156].**

Use of FÉU-143 in Precision Time Measurements in Positron-Lifetime Spectrometers. *M. E. Dubov, I. A. Repin, S. V. Svirida, and A. V. Shishkin.* **1990, No. 1, 165 [159].**

Selection of FÉU-36 and FÉU-87 Photomultipliers for Time Resolution. *S. A. Tishin.* **1990, No. 5, 1157 [171].**

High-Current Photomultipliers with High Time Resolution for Near Infrared Region. *A. G. Berkovskii, V. G. Gusel'nikov, N. E. Semenova, T. V. Smirnova, and A. N. Sushchenko.* **1991, No. 3, 622 [134].**

10.1.4. Study of photomultipliers

Investigation of the Sensitivity of Photomultipliers to Gamma Quanta. *O. V. Kozlov and I. M. Egelev.* **1977, No. 1, 61 [56].**

Increasing Linearity Range of Light Characteristics of a Photomultiplier by Strobing. *I. D. Mitsenko, B. V. Galun, and V. M. Lapushkov.* **1977, No. 1, 221 [193].**

Illumination Characteristics of Dissector Operating in One-Electron and Current Modes. *I. V. Reznikov.* **1977, No. 2, 525 [178].**

Absolute Spectral Sensitivity of Photomultipliers in the Photon-Counting Mode. *N. B. Aref'ev, M. L. Burshtein, V. T. Zarubailo, V. I. Markov, and A. L. Osherovich.* **1978, No. 3, 743 [177].**

Phase Characteristics of Photomultiplier FÉU-117 Operating in the Radioheterodyne Regime. *Yu. Yu. Martyushev and G. D. Petrukhin.* **1978, No. 4, 1051 [190].**

Focusing of Photoelectrons in an FÉU-49 Photomultiplier. *V. L. Dadykin, Ya. S. Elenskii, and A. L. Tsyabuk.* **1979, No. 2, 534 [223].**

Distribution of FÉU-28 Photomultipliers According to Values of Longitudinal Resistance of Photocathodes. *V. M. Modrinskii and I. Z. Rutkovskii.* **1979, No. 3, 787 [162].**

Stroboscopic Unit for Studying the Shape of Single-Pulse Photomultiplier Pulses. *L. V. Viktorov, K. N. Giniyatulin, and A. S. Shein.* **1981, No. 3, 733 [158].**

Setup for Studying Single-Electron Characteristics of Photomultipliers. *V. I. Antonov and S. V. Kholondyrev.* **1981, No. 4, 1024 [187].**

Characteristics of Multialkali Photomultipliers with Total Internal Reflection. *S. N. Del'nova, V. I. Markov, N. K. Smirnov, and N. A. Krivokul'skaya.* **1981, No. 5, 1269 [160].**

Determination of the Partial Contributions from Photomultiplier Electrodes to the Pulse Amplitude Distribution Using Double Modulation. *O. M. Sorokin.* **1981, No. 6, 1492 [149].**

Photomultiplier Amplitude Instabilities and Precision Measurements Using a Scintillation Detector. *V. I. Grantsev, I. P. Dryapachenko, V. I. Konfederatenko, B. A. Rudenko, M. V. Sokolov, and B. G. Struzhko.* **1982, No. 3, 689 [159].**

Static and Dynamic Control Characteristics of the FÉU-117 Photomultiplier. *G. D. Petrukhin, Yu. Yu. Martyushev, and B. M. Glukhovskoi.* **1982, No. 5, 1207 [143].**

Automatic Bench for Study and Selection of Single-Electron Photomultipliers. *A. A. Venikov and K. D. Shelevoi.* **1985, No. 3, 669 [152].**

Determination of Optimum Operating Parameters of Single-Electron Photomultiplier. *A. A. Lukichev, A. L. Shalyapin, and B. V. Shul'gin.* **1985, No. 6, 1388 [137].**

Characteristics of FÉU-130 Photomultiplier. *B. V. Arkhangel'skii, V. I. Dobrynin, R. N. Krasnokutskii, Yu. M. Pishchal'nikov, and R. S. Shuvalov.* **1986, No. 1, 186 [163].**

Study of Potentials on Outer Surfaces of Photomultiplier Envelopes. *I. R. Gulakov and E. V. Klokova.* **1986, No. 4, 904 [138].**

Effective Photoelectron-Collection Coefficient of FÉU-49B Photomultiplier. *L. B. Bezrukov and V. B. Kabikov.* **1988, No. 4, 999 [147].**

Instrument for Study of Single-Electron Photomultipliers. *S. A. Zakamaldin and L. V. Viktorov.* **1988, No. 5, 1257 [141].**

Effect of Electron Flight Past Dynodes on Distribution of Single-Electron Pulses of Photomultipliers. *I. M. Zheleznykh, V. G. Letyagin, V. O. Pozovnoi, and Z. Ya. Sadygov.* **1989, No. 3, 662 [152].**

Optimization of Operating Conditions of FÉU-49B and FÉU-110 Photomultipliers. *V. O. Pozovnoi and Z. Ya. Sadygov.* **1989, No. 3, 665 [154].**

Bench for Photomultiplier Certification. *M. V. Akopyan, S. A. Medved', Yu. M. Pishchal'nikov, and O. V. Skripachev.* **1990, No. 1, 171 [164].**

Low-Frequency Dark-Current and Photocurrent Noise of Photomultipliers. *L. L. Kurchaninov, V. V. Sushkov, and R. S. Shuvalov.* **1990, No. 4, 875 [146].**

10.1.5. External effects on photomultipliers

Photomultiplier Characteristics as Functions of Temperature (Survey). *S. S. Vetokhin, A. N. Pertsev, and I. V. Reznikov.* **1987, No. 2, 245 [7].**

Influence of Illumination Spectrum of the Single-Electron Peak of an FÉU-39A Photomultiplier. *S. S. Vetokhin.* **1977, No. 1, 223 [194].**

Influence of Temperature on Noise and Amplitude Distribution of Dissector Output Pulses. *S. S. Vetokhin and I. V. Reznikov.* **1977, No. 5, 1422 [165].**

Effect of Power Supply and Focusing Conditions on Output Signal of Dissector. *S. S. Vetokhin and I. V. Reznikov.* **1978, No. 2, 481 [202].**

Effect of the Method Used to Regulate the Amplifier Gain on Time of Flight of Electrons for the FÉU-30. *D. A. Gladyshev and B. N. Li.* **1979, No. 3, 791 [165].**

Effect of the Potential of the Outer Surface of the Bulb of an FÉU-49 on the Time of Flight of Photoelectrons. *Ya. S. Elenskii.* **1979, No. 3, 793 [167].**

Effect of Temperature on Photomutiplier Single-Electron Characteristics. *S. S. Vetokhin and I. R. Gulakov.* **1980, No. 1, 203 [196].**

Effect of External Factors on Establishment of Photomultiplier Operating Mode. *S. S. Vetokhin, I. R. Gulakov, and Yu. V. Pislyak.* **1980, No. 1, 206 [198].**

Aftereffect in the FÉU-130. *V. A. Anoshkin, G. G. Petrov, and A. V. Savvin.* **1981, No. 2, 482 [183].**

Effect of Illumination Spectrum on Single-Electron Pulse-Height Distribution of the FÉU-100 Photomultiplier. *V. I. Antonov, V. P. Bobrovich, S. S. Vetokhin, I. R. Gulakov, and I. V. Reznikov.* **1981, No. 3, 743 [166].**

Effect of External Electrostatic Shield on the FÉU-130 Photomultiplier's Characteristics. *V. A. Anoshin and G. G. Petrov.* **1981, No. 3, 745 [168].**

Photomultiplier Afterpulses. *S. S. Vetokhin, I. R. Gulakov, and Yu. V. Pispyak.* **1983, No. 4, 935 [173].**

Aftereffect Characteristics of Multialkali Photomultipliers with Weak Pulsed Illumination. *V. A. Ivanov and V. I. Markov.* **1983, No. 6, 1401 [135].**

The Effect of Ionizing Radiation on a Photomultiplier. *D. Kh. Li, V. G. Epishev, and R. D. Radaeva.* **1985, No. 2, 447 [170].**

Study of Photomultiplier Anode-Current Variation with Pulse Gamma-Neutron Irradiation. *S. N. Makeev, V. A. Petrov, V. G. Popov, I. M. Smelyanskii, and N. M. Trubitsyn.* **1985, No. 6, 1386 [135].**

Variation of Photomultiplier Anode Current for Continuous and Pulsed Gamma Radiation. *S. N. Makeev, V. A. Petrov, I. M. Smelyanskii, and N. M. Trubitsyn.* **1986, No. 1, 182 [160].**

Study of Aftereffect of Photomultiplier in Photon-Count Mode. *V. M. Mitev and I. V. Grigorov.* **1987, No. 1, 188 [172].**

Pulse-Amplitude Distributions of Photomultipliers for Various Types of Ionizing Radiation. *S. N. Makeev, V. A. Petrov, I. M. Smelyanskii, and N. M. Trubitsyn.* **1987, No. 2, 408 [146].**

Reproducibility of Photomultiplier Anode Current with Pulse Control and Illumination. *A. I. Terpilovskii.* **1987, No. 2, 413 [149].**

Effect of Input Window on Noise of Photoelectronic Devices. *I. V. Reznikov.* **1987, No. 2, 416 [152].**

Distortion of Photomultiplier Signals by Background Luminous Flux. *Yu. V. Vavilov and V. I. Zubkov.* **1987, No. 2, 474 [200].**

Effect of Magnetic Fields on Photomultiplier Performance. *S. A. Bulychev and V. V. Kulikov.* **1987, No. 6, 1447 [152].**

Effect of Spectral Composition of Registered Radiation on Characteristics of Single-Electron Dissectors. *I. R. Gulakov and Yu. V. Pislyak.* **1988, No. 2, 415 [135].**

Effect of Light Background on Photomultiplier Sensitivity to Weak Modulated Radiation. *Yu. V. Pislyak.* **1989, No. 4, 936 [179].**

Contribution of Gamma-Produced Secondary Electrons to Anode Current of Photomultipliers. *S. N. Makeev and V. A. Petrov.* **1990, No. 4, 916 [180].**

10.1.6. Supply, stabilization, and control devices for photomultipliers

Photomultiplier-Modulating Circuit with Spurious-Signal Compensation. *N. A. Koshilev, V. L. Masalov, N. A. Strokin, and A. A. Shishko.* **1977, No. 2, 521 [174].**

Electronic Switch for Intermittent Photomultipliers. *V. T. Shkatov and B. P. Aduev.* **1978, No. 1, 170 [163].**

Scintillation Neutron Detector with an Electronic Device for Rapidly Changing the Multiplication Factor of a PM. *S. L. Bogolyubskii, V. V. Vasilevskil, V. I. Liksonov, and V. P. Smirnov.* **1979, No. 3, 788 [163].**

Highly Sensitive Shapers of Photomultiplier Signals. *B. Yu. Baldin.* **1980, No. 5, 1202 [137].**

Protecting the FÉU-49B Photomultiplier from the Effect of the Terrestrial Magnetic Field. *V. V. Georgiev and V. A. Gladyshev.* **1980, No. 5, 1255 [186].**

Anode Sensitivity Control of Photomultipliers with a Reflector Output. *A. A. Putilov, B. A. Putilov, B. G. Makarov, and V. V. Georgiev.* **1981, No. 2, 478 [180].**

Method of Subtracting Internal Noise of Photomultipliers. *M. E. Shishkov and I. E. Zalesskii.* **1981, No. 3, 747 [169].**

Diminution of the Mean Dark Current of a Photomultiplier during Operation with Periodic Signals. *V. I. Kulibaba.* **1982, No. 1, 192 [170].**

An Efficient Circuit for the Automatic Regulation of Photomultiplier Sensitivity. *Yu. Yu. Martyushev and G. D. Petrukhin.* **1983, No. 1, 156 [131].**

Automatic Gain-Stabilization System for a Photomultiplier. *V. I. Ugol'nikov, and A. M. Shalankevich.* **1984, No. 3, 712 [172].**

A Pulse Power Source for Tacitron Photomultipliers. *B. P. Aduev, V. I. Salomatin, and V. T. Shkatov.* **1985, No. 2, 450 [172].**

Improved Voltage Divider for FÉU-63. *I. A. Radkevich, F. D. Ratnikov, and N. G. Tkach.* **1985, No. 4, 941 [188].**

Thyristor Switch for Fast Photomultipliers. *B. P. Aduev, V. I. Salomatin, and V. T. Shkatov.* **1985, No. 5, 1153 [149].**

Method for Photomultiplier Supply. *M. A. Ivanov and S. V. Kholondyrev.* **1986, No. 3, 690 [170].**

Short-Term Instability and Stabilization of Photomultiplier Gain. *V. N. Evdokimov and M. I. Mutafyan.* **1986, No. 4, 900 [134].**

Low-Gain Supply for FÉU-84 for Strong Pulse Signals. *A. N. Fedorov and I. V. Yashin.* **1987, No. 4, 919 [149].**

Automatic Photomultiplier Gain Regulator for Study of Relative Spectral Density. *M. Yu. Mezrin.* **1988, No. 1, 183 [158].**

T^2 Gain Controller for Photomultiplier. *G. N. Baldenkov, A. M. Brodnikovskii, Vs. M. Dul'kin, Vyach. M. Dul'kin, V. I. Kozintsev, and V. V. Smirnov.* **1988, No. 5, 1267 [150].**

Cascaded High-Speed System for Control of Photomultiplier Amplification in Spectropolarimetric Apparatus. *G. I. Utkin, P. B. Rudnev, and V. I. Voronkin.* **1989, No. 4, 939 [182].**

Selection of Photomultiplier Supply Voltage According to Signal-to-Noise Ratio. *S. V. Mot'kin, K. D. Shelevoi, and V. L. Pravdin.* **1990, No. 6, 1369 [131].**

10.2. Image converters

Study of Dynamic Characteristics of UMI-93ShS Image Converter. *G. I. Bryukhnevich, N. S. Vorob'ev, Yu. N. Serdyuchenko, and M. Ya. Shchelev.* **1978, No. 1, 162 [156].**

Time-Contrast Characteristic of Electrooptical Transducers. *V. A. Miller, B. D. Smolkin, and B. M. Stepanov.* **1980, No. 2, 462 [158].**

Nanosecond Electron-Optical Camera for Investigating Relativistic Electron Beams. *V. A. Ganichev, E. M. Gordeev, I. N. Zaidel', P. V. Kuksov, S. D. Fanchenko, and L. F. Shuvalov.* **1980, No. 3, 736 [179].**

Loss in Resolving Power of Electron-Optical Converters with Electromagnetic Focusing under Prolonged Exposures. *V. L. Afanas'ev and A. A. Pimonov.* **1980, No. 3, 740 [182].**

Permanent-Magnet Focusing System for Electron-Optical Converters. *A. A. Blokhin, L. V. Gyavgyanen, S. I. Molokovskii, and V. S. Rylov.* **1980, No. 3, 744 [186].**

Aluminum Foil Focusing Coils for Electron-Optical Converters. *V. F. Pimenov, V. S. Rylov, and T. A. Skosyrskaya.* **1980, No. 4, 1049 [228].**

Effects of Optical Feedback on the Characteristics of an X-Ray Image Intensifier. *T. A. Arkhipova, V. P. Beguchev, V. G. Vygon, G. Z. Kushchova, A. A. Shamanov, and F. B. Yakovleva.* **1981, No. 1, 250 [235].**

Photocathodes for X-Ray Electron-Optical Converters. *E. D. Baeva, E. I. Zak, L. I. Kondrashova, B. M. Stepanov, and I. G. Tverdokhleb.* **1982, No. 4, 988 [188].**

Magnetostatic Focusing System for Two-Chamber Electron-Optical Converters. *L. V. Gyavgyanen, V. S. Rylov, and T. A. Skosyrskaya.* **1982, No. 5, 1211 [146].**

Photocathode Surface-Resistance Determination for Biplanar Electron-Optical Devices. *L. A. Turovskii and V. F. Krasnov.* **1983, No. 5, 1186 [169].**

Optical Input System of a Photochronograph with Compensation for the Anisochronism of the Electrooptical Converter. *G. V. Kolesov, I. M. Korzhenevich, V. B. Lebedev, and B. M. Stepanov.* **1984, No. 1, 186 [170].**

Optimum Method of Voltage Supply to the Traveling-Wave Deflection System of an Image Converter. *G. V. Kolesov, I. M. Korzhenevich, V. B. Lebedev, B. M. Stepanov, and G. G. Fel'dman.* **1984, No. 2, 426 [161].**

Image Converter Tube for Photography with Subnanosecond Frame Times. *T. S. V'yugina, V. M. Zhilkina, T. A. Il'ina, M. I. Krutik, V. B. Lebedev, V. P. Seleznev, B. M. Stepanov, V. N. Syrtsev, and G. G. Fel'dman.* **1985, No. 1, 162 [149].**

Avalanche-Transistor Bridge Scanning Circuit for Electron-Optical Camera with Picosecond Resolution. *A. K. Gilev, M. I. Demchuk, S. M. Dmitriev, V. B. Lebedev, V. P. Mikhailov, and A. P. Chernyavskii.* **1985, No. 6, 1341 [98].**

Universal Picosecond-Range Time-Analyzing Image-Converter Tube. *G. G. Fel'dman, G. I. Bryukhnevich, V. M. Zhilkina, T. A. Il'ina, V. B. Lebedev, V. P. Simonov, and V. N. Syrtsev.* **1987, No. 3, 730 [205].**

GaAs(Cr) Switch for Control of Electron-Optical Camera. *V. K. Belyaev, I. A. Dubovoi, V. V. Ludikov, V. A. Podvyaznikov, A. M. Prokhorov, V. K. Chevokin, and M. Ya. Shchelev.* **1987, No. 5, 1193 [159].**

Coaxial Probe with Semiconductor Target for Study of Electron-Optical Systems. *B. V. Ivanov, A. A. Sushkov, A. D. Sushkov, and A. D. Tupitsyn.* **1988, No. 3, 731 [178].**

"Sapfir-Kadr" Frame Image-Tube Camera. *V. V. Ludikov, A. M. Prokhorov, and V. K. Chevokin.* **1989, No. 1, 242 [212].**

Image-Tube Camera for Simultaneous Recording of X-Ray and Ion Radiation of Laser Plasma. *B. E. Dashevskii, V. A. Podvyaznikov, A. V. Prokhindeev, A. M. Prokhorov, and V. K. Chevokin.* **1989, No. 4, 952 [194].**

Electric Strength of Accelerating Gap of Pulsed Image Converter. *V. B. Lebedev, V. N. Syrtsev, and G. G. Fel'dman.* **1990, No. 4, 920 [184].**

Remote Measurement of Image-Converter Parameters under the Influence of Ionizing Radiation. *S. N. Makeev, V. A. Petrov, V. G. Popov, and O. K. Surkont.* **1990, No. 4, 923 [186].**

Absolute Sensitivity of X-Ray Image Converter in the Range of 7-20 keV. *I. P. Dolbnya, B. A. Knyazev, V. P. Simonov, and G. G. Fel'dman.* **1990, No. 4, 950 [208].**

"Kadr-S" Single-Frame Image-Conversion Camera. *V. V. Ludikov, A. M. Prokhorov, V. K. Chevokin, V. P. Beguchev, S. A. Botnev, and I. A. Fonareva.* **1990, No. 6, 1376 [136].**

Photometric Processing of Images Produced by Image Converters with Microchannel-Plate Amplifiers. *B. A. Knyazev.* **1991, No. 1, 191 [185].**

Multiframe Photography with Biplanar Image Converter. *V. V. Ludikov, A. M. Prokhorov, and V. K. Chevokin.* **1991, No. 4, 890 [141].**

10.3. Electron multipliers

Microchannel Plates in Experimentai Physics (Review). *V. D. Dmitriev, S. M. Luk'yanov, Yu. E. Penionzhkevich, and D. K. Sattarov.* **1982, No. 2, 283 [7].**

Characteristics of VÉU-6 Channel Electron Multipliers in Detection of Neutral Particles. *M. A. Gruntman and A. P. Kalinin.* **1977, No. 2, 528 [180].**

VÉU-6 Electron Multiplier Fed with High-Frequency Pulses. *L. G. Karpov and Yu. L. Sergeev.* **1978, No. 6, 1587 [117].**

Comparison of the Time Resolution of Photoelectric and Dynode Channel Multipliers. *A. I. Ivanov, A. G. Kotik, E. A. Frolov, and I. A. Kharitonov.* **1979, No. 2, 538 [227].**

Dependence of Counting Characteristics of Secondary-Electron Multipliers on Residual Gas Pressure. *V. N. Barkovskii, A. A. Vydrik, I. N. Korobkov, and V. G. Mikutskii.* **1979, No. 5, 1379 [176].**

Characteristics of Pulse-Operated Microchannel Plates. *N. B. Leonov, A. M. Tyutikov, and N. A. Shishatskii.* **1980, No. 1, 200 [193].**

Signal Amplitude Distribution of Secondary Electron Multipliers when Recording Low-Energy Electrons. *I. P. Litvinov, Yu. D. Dekhtyar, G. L. Sagalovich, and A. A. Shevtsov.* **1980, No. 4, 990 [174].**

Gain of Type VEU-6 Channel Electron Multipliers as a Function of the Magnetic Field. *B. V. Mar'in, V. S. Pokidova, and M. V. Tel'tsov.* **1980, No. 4, 994 [177].**

Detection of Accelerated Metal Particles by a Channel Multiplier. *A. I. Akishin, V. P. Kiryukhin, B. V. Mar'in, and L. S. Novikov.* **1980, No. 6, 1453 [129].**

Change of Channel Electron Multiplier Parameters with Aging. *N. M. Shyutte, A. I. Puolokainen, G. I. Volkov, and V. F. Kopylov.* **1981, No. 3, 749 [172].**

Time Characteristics of VÉU-6 Channel Multipliers. *R. Z. Bakhtizin and Yu. M. Yumaguzin.* **1982, No. 2, 437 [145].**

Performance of Direct-Channel Microchannel Plates in a Herringbone Configuration. *O. M. Sorokin.* **1982, No. 2, 439 [146].**

Low-Current Stroboscope Recorder with a Microchannel Plate. *V. A. Rezvov, I. N. Serikov, L. I. Yudin, and A. P. Yablokov.* **1982, No. 5, 1214 [147].**

Improving the Characteristics of Microchannel Plates in Cascade Connection. *M. R. Ainbund and I. P. Maslenkov.* **1983, No. 3, 650 [145].**

Effects of a Magnetic Field on the Characteristics of a VÉU-7 Secondary Electron Multiplier. *M. R. Ainbund, V. A. Gussar, I. P. Maslenkov, N. N. Roldugin, and A. Yu. Khol'nov.* **1984, No. 1, 180 [165].**

Nonlinear Region of the Current-Transfer Characteristics of Microchannel Plates in Image Converters. *T. A. Arkhipova, V. K. Belosheev, G. Z. Kurtsova, M. T. Pakhomov, and M. I. Smirnova.* **1984, No. 2, 429 [163].**

The One-Electron Pulse-Height Resolution as a Characteristic of Open-Type Secondary Electron Multipliers. *M. A. Gruntman.* **1985, No. 1, 157 [144].**

Characteristics of System of Three Microchannel Plates. *M. A. Gruntman and A. A. Demchenkova.* **1986, No. 5, 1144 [146].**

Some Operating Characteristics of Herringbone Microchannel Amplifiers. *N. M. Shyutte, S. M. Sheronova, G. P. Vasnina, E. A. Platov, and V. G. Kaptsov.* **1987, No. 1, 191 [175].**

Parameters of Assembly of Microchannel Plates with Micrometer Gaps. *A. A. Demchenkova.* **1987, No. 5, 1182 [149].**

Characteristics of Microchannel Plates with Straight Channels in Saturation. *A. A. Bashkeev and V. G. Dudnikov.* **1989, No. 4, 818 [77].**

Multiplier Assembly of Three Large-Format Microchannel Plates for Coordinate-Sensitive Detector. *F. I. Blatov, B. M. Glukhovskoi, M. A. Gruntman, A. A. Kozochkina, and V. B. Leonas.* **1990, No. 3, 647 [152].**

Hybrid Electron Multiplier with Wide Dynamic Range. *A. G. Kamenev and I. V. Chubinskii-Nadezhdin.* **1990, No. 5, 1153 [168].**

11. CORPUSCULAR BEAMS, PLASMA

11.1. Molecular and atomic beams

Automated Instrument for Studying Differential Scattering of Fast Beams. *B. V. Zubkov, A. P. Kalinin, and V. B. Leonas.* **1977, No. 4, 1141 [201].**

Obtaining a Modulated Beam of Hydrogen Atoms with Energies of 3-15 keV. *G, V. Roslyakov and V. Ya. Savkin.* **1978, No. 1, 153 [148].**

Use of Ionization Detector to Record Modulated Molecular Beam. *A. A. Vostrikov, Yu. S. Kusner, A. K. Rebrov, and B. E. Semyachkin.* **1978, No. 1, 156 [150].**

Characteristics of a Cooled shf Source of O, H, and D Atomic Beams. *E. N. Evlanov and Yu. V. Lebedev.* **1980, No. 3, 733 [176].**

Setup for Adiabatic Compression of Dense Alkali Metal Vapors. *I. M. Isakov and B. N. Lomakin.* **1980, No. 3, 745 [187].**

Cold Beams of Hydrogen Atoms. *E. N. Evlanov, Yu. V. Lebedev, and V. B. Leonas.* **1981, No. 3, 730 [155].**

High-Temperature Vacuum Atomic and Molecular Source. *G. L. Plekhotkina.* **1981, No. 6, 1552 [201].**

Local Analysis of the Element Composition from the Characteristic X-Rays Excited by a Proton Beam. *S. N. Abramovich, V. P. Gimanov, D. A. Goganov, B. Ya. Guzhovskii, A. P. Solodovnikov, and V. V. Chulkov.* **1982, No. 1, 205 [181].**

Measurement of the Time-of-Flight Spectrum of a Supersonic Beam with an AI-128-2 Multichannel Pulse-Height Analyzer. *F. F. Papp, E. É. Kontrosh, N. I. Romanyuk, A. V. Snegurskii, and A. N. Zavilopulo.* **1982, No. 4, 975 [176].**

Diagnostics of Density of Gallium and Aluminum Atomic Beams. *B. A. Kolesov, A. F. Testov, and F. A. Kuznetsov.* **1983, No. 1, 139 [120].**

Generator of Molecular Gas Beams. *R. F. Gazizov, Yu. A. Gel'man, Yu. M. Dymshits, and A. A. Chernov.* **1985, No. 3, 657 [142].**

Pure Source for Molecular-Beam Epitaxy. *D. I. Lubyshev and V. P. Migal'.* **1986, No. 4, 944 [171].**

Study of Molecular Beams Using Triband Ring Selector. *E. P. Pavlov and V. D. Perminov.* **1986, No. 6, 1405 [150].**

Cesium Injector for Thermionic Microscope. *V. A. Koryukin, V. P. Obrezumov, and P. D. Chilingarishvili.* **1987, No. 2, 457 [186].**

Apparatus for Study of Energy Parameters of Gas-Dynamic Molecular Beams. *A. I. Dolgin, A. A. Markov, A. V. Seryakov, and M. A. Khodorkovskii.* **1989, No. 2, 430 [155].**

Detector for Beam of Metastable Hydrogen Atoms. *V. E. Kuzik.* **1990, No. 1, 158 [153].**

IRA Radioactive-Atom Implanters. *V. A. Ryzhkov.* **1990, No. 4, 963 [220].**

Molecular-Beam Detector Based on MKh7304 Mass Spectrometer. *V. M. Akimov, L. Yu. Rusin, and F. A. Tsyganov.* **1991, No. 1, 163 [162].**

Gas-Dynamic Molecular-Beam Source. *V. M. Akimov, L. Yu. Rusin, and F. A. Tsyganov.* **1991, No. 1, 166 [164].**

11.2. Ion beams

System with Submicron Ion Probe for Microstructuring and Analysis of Materials. *V. T. Cherepin, V. L. Ol'khovskii, V. É. Is'yanov, I. A. Zotov, and S. P. Chenakin.* **1991, No. 4, 883 [135].**

11.2.1. Ion-beam generation

Magnetic Mirror Trap with Electron-Cyclotron Plasma Heating as a Source of Multiply Charged Ions (Review). *K. S. Golovanivskii.* **1985, No. 5, 989 [7].**

Electron-Cyclotron-Resonance Ion Sources (Review). *K. S. Golovanivskii and V. D. Dougar-Jabon.* **1991, No. 4, 739 [8].**

Ion Source Based on a Discharge Contracted in Crossed Fields. *B. I. Zhuravlev, V. A. Nikitinskii, and A. S. Zakharov.* **1977, No. 4, 1144 [204].**

High-Frequency Source of Low-Energy Ions. *B. A. D'yachkov, N. M. Zaryankin, V. I. Logunov, and A. V. Nasonov.* **1978, No. 2, 469 [191].**

A Source of Metal Ions. *V. A. Gruzdev, Yu. E. Kreindel', and A. P. Semenov.* **1978, No. 2, 471 [193].**

Stationary Plasma Source of Low-Energy Ions. *S. V. Lebedev and B. N. Titishov.* **1978, No. 4, 857 [26].**

Plasma Source for Bombardment of Solids by Positive and Negative Ions. *G. M. Gurevich, Yu. L. Danilyuk, and A. P. Kovarskii.* **1978, No. 4, 1041 [181].**

High-Aperture Source of Ions with Surface Ionization. *V. P. Ivanov, A. I. Rastorguev, A. A. Sysoev, N. I. Tananykin, and P. N. Chistyakov.* **1978, No. 4, 1058 [196].**

Ion Projector. *D. A. Noskov and N. G. Pankovets.* **1978, No. 5, 1361 [185].**

Intense Ion-Beam Sources with Compensation of Positive Space Charge inside Acceleration Gap. *Yu. P. Maishev.* **1980, No. 1, 189 [183].**

A 200-keV Heavy Ion Accelerator for Work in Solid State Physics. *A. M. Markus, V. F. Udovenko, M. V. Zinov'ev, V. A. Rykov, and V. I. Momot.* **1980, No. 4, 829 [22].**

Source of Metal Ions. *V. A. Nikitinskii and B. I. Zhuravlev.* **1981, No. 4, 1008 [172].**

Source of Alkali-Metal Ions. *S. F. Belykh and R. N. Evtukhov.* **1982, No. 2, 491 [191].**

Power Supply for Gas-Discharge Ion Source. *A. N. Bryukhanov, S. T. Latushkin, and L. I. Yudin.* **1982, No. 3, 673 [146].**

Use of the Penning Effect in Ionizing Inert Gases in a Plasma Ion Source. *D. Maczka, A. Latuszynski, and A. Wasjak.* **1983, No. 4, 929 [168].**

A Duoplasmatron Containing a Wien Filter for Examining the Surfaces of Solids. *A. L. Pivovarov, V. T. Chenakin, V. T. Cherepin, and I. A. Zaporozhets.* **1984, No. 1, 166 [151].**

Production of Mo, Ta, and W Ions in an Arc Source. *M. Yu. Bredikhin and B. P. Il'enko.* **1984, No. 4, 935 [133].**

A Three-Strip Ion Source with a Demountable Evaporator. *V. V. Kalygin, B. A. Romanov, V. A. Bulygin, and V. Ya. Gabeskiriya.* **1984, No. 2, 416 [151].**

Effect of Discharge-Chamber Temperature on Yield of Multiply Charged Metal Ions from Arc Source with Cathode Sputtering of Working Material. *M. Yu. Bredikhin and B. P. Il'enko.* **1985, No. 4, 909 [159].**

Cold-Cathode Gas-Discharge Ion Source. *B. I. Zhuravlev, V. A. Nikitinskii, and A. T. Gaponenko.* **1985, No. 4, 907 [157].**

Source of Multiply Charged Ions with Combined Magnetic Field. *L. V. Agarkova, A. N. Kupriyanov, S. I. Meleshkov, L. B. Pletnikov, V. N. Reshetnikov, and B. I. Rudyak.* **1985, No. 6, 1261 [27].**

Radio-Frequency Ion Source with Metal Discharge Chamber. *Yu. B. Gorbatov and V. I. Zinenko.* **1986, No. 1, 179 [158].**

Source of Ions of Solid and Gaseous Materials. *S. I. Belyuk, R. G. Karimov, Yu. E. Kreindel', and V. V. Moroshkin.* **1986, No. 2, 434 [155].**

Electrohydrodynamic Ion Source. *V. G. Dudnikov and A. L. Shabalin.* **1986, No. 5, 1148 [149].**

Metal-Ion Source with Hot Hollow Cathode. *V. A. Saenko, A. A. Derkach, and G. N. Veremeichenko.* **1987, No. 1, 168 [154].**

Producing Large-Aperture Metal-Ion Beams. *A. I. Akenov, S. P. Bugaev, V. A. Emel'yanov, G. P. Erokhin, N. G. Pankovets, A. M. Tolopa, and S. M. Chesnokov.* **1987, No. 3, 652 [139].**

Discharge Chamber of High-Current Ion Source with Cold Hollow Cathode. *V. N. Glazunov, V. G. Grechanyi, and A. S. Metel'.* **1988, No. 1, 167 [145].**

Plasma Ion Source. *N. V. Volkov, B. A. Kalin, and P. I. Kartsev.* **1988, No. 2, 400 [123].**

Cold-Cathode Ion Source. *A. V. Trofimov and V. M. Chutko.* **1988, No. 2, 403 [126].**

Sharp-Focusing System for Production of Micrometer Beams of High-Energy Ions. *S. P. Karpov, A. G. Puzyrevich, A. I. Ryabchikov, and A. L. Shipilov.* **1988, No. 4, 983 [135].**

Ion-Beam System with Submicrometer Beam of Gallium Ions. *V. V. Zharkov, A. A. Kozlov, and E. Ya. Chernyak.* **1988, No. 4, 987 [138].**

Radio-Frequency Source of Chemically Active Ions. *Yu. B. Gorbatov and V. I. Zinenko.* **1988, No. 5, 1245 [131].**

Generator of High-Power Submicrosecond Ion and Electron Beams. *A. Kh. Amirov, P. S. Anan'in, V. M. Bystritskii, I. B. Ivanov, Ya. E. Krasik, V. A. Skvortsov, and V. G. Tolmacheva.* **1989, No. 1, 36 [39].**

Use of Magnetic Field in Ion-Source Expander to Control Beam Current and Profile. *V. I. Batkin and O. Ya. Savchenko.* **1989, No. 3, 646 [139].**

High-Power Ion-Beam Generator for Gas-Laser Pumping. *M. S. Arteev, S. V. Baranov, V. A. Vaulin, A. N. Didenko, N. K. Kapishnikov, B. M. Koval'chuk, V. A. Kokshenev, A. A. Kuznetsov, G. A. Mesyats, V M. Muratov, P. A. Sankevich, V. N. Slinko, S. S. Sulakshin, V. F. Tarasenko, and A. L. Filatov.* **1989, No. 4, 914 [160].**

Source of Metal Ions for Implantation. *A. M. Markus, V. F. Udovenko, N. I. Velichko, L. K. Kolybaev, and Sh. M. Nat.* **1990, No. 2, 411 [159].**

Wide-Aperture Source of Reactive-Gas Ions. *A. I. Stognii and V. V. Tokarev.* **1990, No. 3, 635 [142].**

Discharge Chamber of Metal-Ion Source. *V. A. Saenko, A. A. Derkach, and V. M. Poznikharenko.* **1990, No. 4, 910 [176].**

Ion Source Based on High-Voltage Glow Discharge. *I. E. Antipov and E. V. Chikin.* **1990, No. 4, 961 [217].**

Reactive-Gas-Ion Source. *A. I. Stognii, A. I. Demchenko, A. I. Dubovik, A. I. Zelenko, and S. N. Mosyagin.* **1990, No. 5, 1011 [42].**

Nuclear Microprobe. *A. G. Puzyrevich and A. I. Ryabchikov.* **1990, No. 5, 1203 [209].**

Ion Source (100 kV) Based on Vacuum Arc Excited by Constricted Discharge. *S. P. Bugaev, E. M. Oks, P. M. Shchanin, and G. Yu. Yushkov.* **1990, No. 6, 1362 [125].**

"Raduga-2" Source of Multielement Ion Beams of Variable Composition. *A. I. Ryabchikov, N. M. Arzubov, and S. V. Dektyarev.* **1991, No. 1, 173 [171].**

Discharge-Based Ion Source (with Hollow Cathode). *A. P. Semenov and B.-Sh. Ch. Batuev.* **1991, No. 1, 180 [177].**

Periodically Pulsed Source of High-Power Electron and Ion Beams. *N. V. Gavrilov, Yu. E. Kreindel', and O. A. Shubin.* **1991, No. 3, 618 [130].**

11.2.2. Ion-beam diagnosis

Study of Profile of an Ion Beam by Means of a Titanium Tritide Collector. *Yu. G. Bessarabskii, S. B. Ovsyannikov, and S. P. Sukhoveev.* **1977, No. 3, 880 [232].**

Positive Thermionic Emission of High-Melting Metals. *N. P. Katrich and V. N. Kanishchev.* **1980, No. 5, 1245 [176].**

A Sensor for Measuring the Transverse Velocities of the Ions of a Plasma Emitter. *G. V. Roslyakov.* **1981, No. 2, 464 [167].**

An Ion Beam Monitor. *A. S. Brus, A. I. Velikov, M. A. Kuz'michev, V. A. Klyukovich, and V. K. Khorenko.* **1981, No. 3, 585 [29].**

An Ion-Electron Transducer for Registering Weak Ion Fluxes. *V. R. Lazarenko, Yu. A. Murav'ev, and L. G. Tokareva.* **1981, No. 4, 1013 [176].**

Apparatus for Measuring the Drift Velocity of Ions in Gases. *F. P. Demidov and A. B. Prishchepenko.* **1981, No. 4, 1062 [223].**

Instrument for Measuring the Position of a Beam of Charged Particles. *I. M. Bolotin, Yu. A. Bystrov, E. N. Zagranichnyi, G. L. Mamaev, Yu. F. Radchenko, and A. M. Shcherbakov.* **1982, No. 2, 430 [139].**

Device for Measuring the Energy Reflection Coefficient in Charged-Particle Bombardment of a Metal. *N. N. Koborov and V. A. Kurnaev.* **1982, No. 4, 971 [173].**

Variation of the Width of the Energy Range of a Multichannel Analyzer. *I. P. Gladkovskii.* **1983, No. 1, 143 [122].**

Ion Source for Studying Ion Distribution with Respect to Initial Kinetic Energy. *G. D. Tantsyrev and Yu. F. Baranov.* **1985, No. 3, 659 [143].**

Device for Automatic Recording of Energy Distribution of Ions Produced in Field Desorption. *V. A. Pokrovskii, B. G. Mischanchuk, and P. N. Grabovyi.* **1986, No. 6, 1402 [147].**

Measurement of Angular Distributions of Ions with Energies of Several Megaelectron Volts Scattered at Small Angles. *G. D. Ved'manov, V. P. Kozlov, V. N. Kudryavtsev, Yu. G. Lazarev, and V. I. Radchenko.* **1989, No. 2, 301 [47].**

Acoustic Pickup for Determination of Current Density of High-Power Ion Beam. *V. I. Boiko, S. N. Volkov, Ya. E. Krasik, and I. V. Shamanin.* **1989, No. 2, 427 [152].**

Device for Diaphragming of Cylindrical Energy Analyzer for Spectroscopy of Backscattered Low-Energy Ions. *S. S. Volkov, V. T. Gutenko, and Yu. E. Dmitrevskii.* **1991, No. 1, 160 [159].**

Possibility of Acoustic Measurement of the Current Density of a High-Power Ion Beam. *V. S. Kovivchak.* **1991, No. 1, 239 [226].**

Response to Commentary of V. S. Kovivchak – "Possibility of Acoustic Measurement of the Current Density of a High-Power Ion Beam". *V. I. Boiko and I. V. Shamanin.* **1991, No. 1, 240 [227].**

11.3. Electron beams

Design of Foil Windows for Wide-Beam Electron Guns. *V. I. Fedorov, A. S. Myasnikov, and L. P. Shanturin.* **1981, No. 6, 1486 [144].**

Window for Vacuum-to-Atmosphere Electron-Beam Extraction. *A. V. Dvurechenskii and B. P. Kashnikov.* **1985, No. 3, 531 [29].**

Foils for Exit Windows of Industrial Electron Accelerators with Increased Current Density. *E. S. Machurin, G. I. Klenov, V. V. Vladimirov, S. A. Gus'kov, V. P. Kulichenko, N. A. Mel'nikova, L. M. Pachkalin, and P. V. Petrenko.* **1987, No. 2, 264 [22].**

Research Complex for Electron-Beam Lithography. *S. V. Babin, A. V. Davydov, and A. I. Erko.* **1987, No. 2, 463 [191].**

Calculation of Mechanical Stresses in Electron Exit-Window Foils in Industrial Accelerators. *V. V. Vladimirov, A. L. Gritskevich, V. V. Davidovskii, N. P. Kulish, E. S. Machurin, N. A. Mel'nikova, and S. P. Repetskii.* **1988, No. 3, 544 [29].**

Current Controller for Electron Gun. *A. I. Balabukh, V. N. Kiselev, M. N. Leshchev, and E. G. Livshits.* **1988, No. 5, 1336 [202].**

Scanning System for High-Energy Pulsed Electron Beam. *A. M. Rozenblat.* **1989, No. 1, 44 [46].**

11.3.1. Electron-beam generation

Obtaining Heavy Current Electron Beams (Survey). *V. P. Smirnov.* **1977, No. 2, 337 [7].**

Generation of High-Energy Electron Beams of Large Cross Sections (Review). *S. P. Bugaev, Yu. E. Kreindel', and P. M. Shchanin.* **1980, No. 1, 1 [7].**

Three-Electrode Pulsed Electron Gun on a Current of up to 250 A. *Yu. V. Grigor'ev and L. P. Shanturin.* **1977, No. 3, 642 [32].**

Small 600-keV Nanosecond Electron Accelerator. *N. V. Belkin, V. V. Kul'gavchuk, N. G. Pavlovskaya. M. Yu. Tarakanov, V. A. Tsukerman, and S. L. El'yash.* **1977, No. 5, 1266 [36].**

60-keV High-Current Pulsed Electron Accelerator. *Yu. L. Bakshaev and É. Z. Tarumov.* **1978, No. 1, 8 [11].**

Pulsed Electron Gun with Emission into the Atmosphere of a Stream of Large Cross Section. *Yu. V. Grigor'ev and L. P. Shanturin.* **1978, No. 2, 464 [187].**

Differential Evacuation System for the Emission of an Electron Beam into the Atmosphere. *V. A. Artemov, O, A Malafeev, A. V. Reder, A. V. Rykhlov, and V. A. Safonov.* **1978, No. 2, 468 [190].**

Controllable Electron Gun with Plasma Cathode. *M. A. Zav'yalov and V. I. Perevodchikov.* **1979, No. 1, 171 [162].**

Four-Electrode Electron Gun with Emission into the Atmosphere of a Stream with a Cross Section of 10 × 80 cm^2. *Yu. V. Grigor'ev and L. P. Shanturin.* **1979, No. 4, 1088 [194].**

Annular Electron Gun Design. *G. P. Prudkovskii and A. V. Khotina.* **1979, No. 4, 1090 [196].**

Annular Electron Gun Construction and Experiment. *V. A. Polinovskii, G. P. Prudkovskii, and A. V. Khotina.* **1979, No. 4, 1094 [199].**

Electron Gun with a Plasma Cathode and a Built-In Compact Gas Generator. *V. A. Gruzdev, Yu. E. Kreindel', and O. E. Troyan.* **1979, No. 5, 1372 [169].**

High-Perveance Electron Gun with Beam Power to 0.5 kW. *N. S. Zinchenko and V. A. Sokolova.* **1981, No. 3, 724 [149].**

High-Voltage Electron Source with Plasma Emitter for Forming Beams with a Large Cross Section. *N. V. Gavrilov, B. M. Koval'chuk, Yu. E. Kreindel', V. S. Tolkachev, and P. M. Shchanin.* **1981, No. 3, 727 [152].**

Gas Discharge Electron Gun Emitting a Beam into a Medium Pressure Gas. *V. D. Gitt, D. A. Noskov, L. N. Orlikov, P. I. Ryl'tsev, S. I. Tikhomirov, and E. B. Chikin.* **1981, No. 4, 1005 [169].**

Nanosecond Generators of Fast Electron Pulses of Energy up to 500 keV. *N. V. Belkin, V. I. Kolegov, and L. N. Khudyakova.* **1981, No. 5, 1253 [145].**

High-Current Nanosecond Electron Beams of Energy Up to 0. 6 MeV. *N. I. Kalinovskaya, V. V. Kul'gavchuk, S. I. Lobov, N. G. Pavlovskaya, and S. L. El'yash.* **1982, No. 1, 188 [166].**

Continuous-Running Electron Gun with a Large-Area Plasma Cathode. *Yu. E. Kreindel', V. Ya. Martens, V. Ya. S'edin, and S. V. Gavrintsev.* **1982, No. 4, 977 [178].**

A Pulsed Electron Accelerator with Extraction of a Broad Beam into the Atmosphere. *M. A. Abroyan, P. M. Bogomazov, S. F. Zverev, S. L. Kosogorov, V. A. Lagutin, V. A. Rodichkin, A. D. Susarov, G. M. Tokarev, and K. A. Sharkov.* **1982, No. 5, 1065 [28].**

High-Perveance Electron Gun with Beam Power <8 kW. *V. A. Sokolova and N. S. Zinchenko.* **1983, No. 2, 407 [153].**

Gas-Filled Electron Gun with a Plasma Anode. *A. A. Nechaev, I. G. Persiantsev, V. M. Polushkin, M. A. Timofeev, and V. A. Tugarev.* **1983, No. 2, 410 [156].**

Simulation of a Ring-Shaped Electron Gun. *S. R. Dotsenko and S. V. Lebedev.* **1983, No. 2, 412 [157].**

Electron Source Based on a Duoplasmatron. *Yu. N. Antonov and V. A. Konovalov.* **1983, No. 4, 932 [171].**

A Device for Extracting a Focused Electron Beam into a Gas. *M. N. Vasil'ev and A. S. Koroteev.* **1984, No. 1, 169 [154].**

Plasma Electron Source. *S. S. Denisov, N. A. Uspenskii, and V. P. Fedyakov.* **1984, No. 2, 403 [139].**

Pulsed Electron Source Based on Non-Self-Maintained High-Voltage Glow Discharge. *N. V. Gavrilov, Yu. E. Kreindel', and P. M. Shchanin.* **1984, No. 2, 407 [143].**

Plasma-Emitter Pulse Electron Source Based on a Cascade Arc. *Yu. E. Kreindel', E. M. Oks, and P. M. Shchanin.* **1984, No. 4, 928 [127].**

Power-Supply System for High-Voltage Electron Guns with Grid Control. *Yu. V. Grigor'ev.* **1984, No. 6, 1437 [127].**

Gas-Discharge Electron Gun with a Gasdynamic Window. *E. V. Chikin, L. N. Orlikov, and I. V. Minina.* **1984, No. 6, 1449 [137].**

Pulsed Electron-Beam Source Based on MIRA-4D X-Ray Equipment. *G. G. Golubkov, S. I. Zavorotnyi, and A. A. Ovchinnikov.* **1984, No. 6, 1452 [139].**

Shaping a Stationary Tubular Electron Beam of High Perveance in a Longitudinal Magnetic Field. *I. N. Meshkov, A. N. Sharapa, and A. V. Shemyakin.* **1984, No. 6, 1454 [141].**

High-Perveance Electron Guns with Vacuum-Tight Cermet Bodies. *N. S. Zinchenko, V. I. Afanas'ev, G. D. Zaitsev, V. A. Sokolova, and N. E. Khoroshailo.* **1985, No. 1, 148 [137].**

An Electron Gun with a Plasma Emitter. *V. A. Gruzdev, Yu. E. Kreindel', N. G. Rempe, and O. E. Troyan.* **1985, No. 1, 151 [140].**

An Apparatus for High-Temperature Electron Irradiation in Superhard Vacuum. *V. L. Arbuzov, A. E. Davletshin, S. E. Danilov, D. E. Domanskii, S. M. Klotsman, and A. L. Nikolaev.* **1985, No. 2, 439 [162].**

Electron Gun for Surface Treatment of Materials. *S. A. Korenev, N. I. Balalykin, I. B. Enchevich, and M. K. Mikhov.* **1985, No. 5, 1200 [190].**

Electron Gun with Cylindrical Window. *Yu. V. Grigor'ev and A. V. Stepanov.* **1985, No. 6, 1375 [126].**

Generation of Relativistic Electron Beam in Plasma-Filled Diode. *N. A. Kondrat'ev, G. I. Kotlyarevskii, V. S. Pak, A. V. Petrov, and V. I. Smetanin.* **1986, No. 4, 857 [97].**

Synchronized High-Current Accelerators for Irradiation of Solids by Electron-Electron and Electron-X-Ray Beams. *D. I. Vaisburd, B. N. Semin, E. S. Serobyan, and V. A. Trofimov.* **1986, No. 6, 1389 [135].**

High-Voltage Pulsed Electron Source with Plasma Emitter for Radially Divergent Beam. *A. M. Efremov, B. M. Koval'chuk, Yu. E. Kreindel', V. S. Tolkachev, and P. M. Shchanin.* **1987, No. 1, 182 [167].**

100-keV Electron Gun. *B. S. Ishkhanov, M. Yu. Nikol'skii, S. P. Rakitin, I. M. Piskarev, and V. I. Shvedunov.* **1987, No. 3, 515 [24].**

Electron Gun with Induction-Heated Emitter. *Yu. Ya. Volkolupov, A. D. Kuribeda, P. I. Ryl'tsev, and A. G. Shein.* **1987, No. 4, 783 [32].**

Compact 150-keV Nanosecond Electron Accelerator. *B. Z. Movshevich.* **1988, No. 1, 5 [10].**

Electron Gun for Active Plasma Experiments. *B. A. Snedkov, A. V. Trubitsyn, V. S. Balyuk, and V. P. Dzyuba.* **1988, No. 2, 395 [119].**

Microsecond Electron Accelerator for Surface Treatment of Materials. *E. P. Bol'shakov, O. L. Komarov, A. V. Lazarenko, O. P. Pecherskii, E. S. Chebukov, and V. I. Engel'ko.* **1988, No. 6, 1381 [18].**

Microprocessor-Controlled Power System for Electron Gun. *N. I. Duplin and N. N. Sergeev.* **1988, No. 6, 1384 [20].**

Study of Formation of Tubular Electron Beam. *A. M. Artamoshkin, A. K. Berezin, B. N. Zinchenko, and Yu. M. Lyapkalo.* **1989, No. 4, 773 [39].**

Electron Gun with Radially Covergent Beam. *G. M. Kassirov, G. I. Klenov, and F. G. Sekisov.* **1990, No. 2, 468 [210].**

Separating Membranes for Exit Windows of Electron Guns. *Yu. V. Grigor'ev and A. V. Stepanov.* **1990, No. 4, 895 [164].**

Generator of Dense High-Current Electron Beam for Free-Electron Laser. *A. V. Kozhevnikov and V. S. Pak.* **1991, No. 2, 393 [148].**

Compact 150-kV Electron Accelerator. *G. M. Kassirov, F. G. Sekisov, and N. N. Shumilova.* **1991, No. 2, 419 [171].**

Pulse Device for Extraction of Quasicontinuous Electron Beam into Dense Gas. *V. S. Zhivopistsev, A. O. Ikonnikov, S. A. Il'chenko, A. T. Kunavin, D. V. Sapozhnikov, and V. E. Yakovlev.* **1991, No. 3, 607 [122].**

Electron-Beam Sources with Energies to 1 keV. *A. A. Borovik.* **1991, No. 3, 610 [124].**

Electron Gun for Surface Studies. *N. E. Menabde, Yu. I. Nardaya, S. A. Zaslavskii, and L. M. Tsakadze.* **1991, No. 3, 712 [215].**

11.3.2. Cathodes

Device for Heating and Heat Treatment of Oxide Cathodes. *Yu. N. Voronov and V. V. Uskov.* **1979, No. 2, 595 [277].**

Pulsed Desorption Slot Cathode. *E. N. Danil'tsev and V. I. Pershin.* **1979, No. 4, 918 [36].**

High-Voltage Pulse Operation of Film Cold Cathodes. *B. V. Bondarenko, N. A. Dyuzhev, V. I. Makhov, E. N. Danil'tsev, G. M. Kukavadze, and V. I. Pershin.* **1979, No. 6, 1593 [105].**

Field Emission Electron Source Made from Carbon Filaments. *A. S. Fialkov, N. I. Osipov, I. F. Anaskin, and N. D. Kuprikova.* **1980, No. 3, 802 [238].**

MIM System for Cathode Emission Current Control. *V. I. Bashkirov, V. I. Khatnikov, and Yu. B. Yankelevich.* **1980, No. 6, 1517 [181].**

Efficient Thermoemission Electron Source with Lanthanum Hexaboride Emitter. *D. V. Iremashvili, V. V. Sukhomlinov, V. A. Ksenofontov, V. G. Chanturidze, V. E. Petrakov, and G. A. Avatinyan.* **1982, No. 2, 427 [137].**

Thermocathode Current Stabilizer. *N. V. Parol', L. S. Rozinskii, and A. G. Savchenkov.* **1983, No. 5, 1170 [155].**

Increasing the Current Take-Off from a Graphite Cathode. *S. A. Korenev.* **1983, No. 6, 1398 [133].**

Design and Heating Characteristics of a Thermal Emission Cathode for Microtrons. *É. A. Luk'yanenko, Yu. E. Tokarev, V. N. Kovalev, A. A. Lyapin, and M. M. Chursin.* **1984, No. 4, 829 [44].**

Lanthanum Hexaboride Cathodes for Electron-Beam Devices. *N. V. Parol, B. I. Lazanov, A. A. Golovchenko, N. A. Iofis, B. P. Kovalev, and V. F. Zholobova.* **1984, No. 5, 1205 [146].**

An Instrument for Examining the Thermionic Emission Parameters of Cathode Materials. *V. V. Evstifeev, R. N. Evtukhov, and A. A. Kal'kov.* **1985, No. 2, 492 [211].**

Technology for Producing Carbon Field Emitters. *R. M. Khatapova, L. L. Demskaya, and V. Kh. Romanova.* **1985, No. 3, 729 [205].**

Temperature Regulator for Electron-Projector Cathode. *N. V. Parol', L. S. Rozinskii, A. G. Savchenkov, and G. A. Semanova.* **1985, No. 5, 1234 [220].**

Field-Emission Cathodes of Glass-Insulated Microwire. *F. G. Donika, D. F. Miglei, and V. V. Smyslov.* **1987, No. 1, 224 [205].**

Cathode Unit with Electron Heating. *Yu. V. Grigor'ev, V. A. Tarasenkov, and V. I. Fedorov.* **1987, No. 5, 1153 [126].**

Regulated Power Supply for Electron-Gun Cathode Heater. *R. D. Usmanov.* **1988, No. 3, 688 [144].**

Compact High-Temperature Cathode Unit with Electronic Heating. *V. R. Anufriev and N. V. Cherkasskii.* **1988, No. 4, 975 [128].**

Optimized High-Temperature Cathode-Heater Unit. *T. A. Vorob'ev, D. V. Iremashvili, A. P. Timoshenko, and A. I. Yatskiv.* **1989, No. 2, 434 [158].**

Explosive-Emission Cathode Fabricated from Superconducting Cable. *I. Vavra and S. A. Korenev.* **1989, No. 3, 654 [145].**

Fabrication of Explosive-Emission Cathodes by Track Method. *G. N. Akap'ev and S. A. Korenev.* **1989, No. 4, 908 [155].**

Explosive-Emission Cathode based on Carbon-Fiber Plastic. *S. A. Korenev, A. M. Baranov, S. V. Kostyuchenko, and N. M. Chernenko.* **1989, No. 5, 1191 [194].**

Thyristor Regulator of Cathode Emission Current. *V. S. Belkin, D. D. Gruich, and S. V. Pichko.* **1989, No. 6, 1415 [162].**

Power Supply for Hot Cathode. *E. A. Kopelovich and V. V. Bondarenko.* **1990, No. 1, 149 [146].**

Economical Heater-Voltage Supply Combined with Anode-Current Regulator. *A. D. Pokryvailo and B. M. Russakovskii.* **1990, No. 3, 713 [208].**

High-Temperature Cathode-Heater Units of Composite Material. *A. N. Ermilov and L. V. Loginov.* **1991, No. 2, 454 [201].**

11.3.3. Electrode emission

Metallic Superhigh-Vacuum Apparatus for Photoelectric Measurements in the hν ≤ 10.9-eV Region. *V. K. Adamchuk, S. I. Fedoseenko, and V. M. Aleksandrov.* **1977, No. 1, 203 [178].**

Miniature Low-Energy Photoelectron Analyzer. *A. I. Dolgin and V. I. Il'in.* **1977, No. 1, 215 [188].**

Automatic Instrument for Recording Secondary-Electron Emission Coefficient of Metallic Materials. *E. M. Savitskii, I. V. Burov, and V. I. Kapustin.* **1977, No. 2, 515 [169].**

Experimental Instrument for Studying Thermoemission Properties of Metals and Alloys. *G. A. Ablisimov, I. F. Divisenko, V. A. Zemlyankin, and M. K. Konin.* **1977, No. 3, 839 [200].**

Universal Instrument for the Investigation of Local and Integral Electron Emission. *A. V. Gostev, E. M. Reikhrudel', N. Ya. Rukhlyada, and B. B. Shishkin.* **1978, No. 4, 1053 [192].**

Photoelectric Method of Determining Fast Variations of the Work Function. *S. Sendecki and B. Barwinski.* **1978, No. 4, 1056 [194].**

Apparatus for the Measurement of Electron Field-Emission Noise. *R. Z. Bakhtizin and S. S. Gots.* **1978, No. 5, 1327 [155].**

Units for Measuring the Work Function of a Metal by the Vibrating Capacitor Method. *J. Baczynski, H. Malecki, and M. Stempinski.* **1979, No. 4, 1101 [205].**

Differential Photoelectronic Spectrometer with a Retarding Grid. *A. V. Golovin, M. E. Akopyan, F. I. Vilesov, and Yu. L. Sergeev.* **1979, No. 6, 1613 [123].**

Analog Device for Determining Secondary-Emission Coefficients. *S. Ya. Lebedev, V. V. Oznobishin, V. V. Bondarenko, A. N. Efeshin, and V. S. Parshutin.* **1980, No. 1, 186 [180].**

Apparatus for Measuring Low-Frequency Noise of Field-Emission Cathodes. *R. Z. Bakhtizin and S. S. Gots.* **1981, No. 3, 711 [136].**

Stabilization of Field Emission Current. *N. I. Ogipov and I. F. Anaskin.* **1981, No. 5, 1256 [148].**

Registration System for a Secondary Electron Spectrometer. *D. P. Bernatskii, S. L. Zaslavskii, I. I. Pronin, and M. V. Gomoyunova.* **1982, No. 1, 202 [178].**

Installation for the Registration of Electron Emission. *V. V. Borisov, V. G. Malets, and A. M. Shkil'ko.* **1982, No. 3, 657 [133].**

A Method of Examining the Number of Electrons Produced in an Elementary Act of Field Emission. *N. P. Afanas'eva, N. V. Egorov, A. V. Kocheryzhenkov, and G. N. Fursei.* **1982, No. 5, 1204 [141].**

A Device for Examining the Emission Properties of Material. *A. I. Klinkov and V. F. Platonov.* **1982, No. 5, 1292 [210].**

Method of Investigating Field Emission in a Microwave Electric Field. *L. L. Anan'ev, M. M. Bogatskii, D. A. Borisov, A. A. Kantonistov, and G. N. Fursei.* **1983, No. 5, 1181 [165].**

Digital Generation of the Inverse Function and Calculation of the Energy Distribution of Electron Emission. *O. M. Sorokin.* **1984, No. 1, 172 [157].**

An Apparatus for Examining Adsorption on Solids from Ellipsometry and the Retarding Potential. *Yu. I. Asalkhanov, A. P. Kudryash, and D. D. Egorov.* **1984, No. 2, 420 [155].**

Energy-Spectrum Analyzer for Autoelectrons. *R. Z. Bakhtizin and Yu. M. Yumaguzin.* **1984, No. 3, 759 [212].**

Arrangement for Studying Pulsed Cold Emission of Electrons. *N. V. Egorov, K. O. Kallistov, and O. A. Kharitonov.* **1985, No. 2, 442 [165].**

Apparatus for Study of Electron–Photon Emission of Solids. *V. A. Kritskii, M. P. Klyap, and S. S. Pop.* **1985, No. 3, 666 [149].**

Modification of Input Electron-Optical System of ES-2401 Photoelectron Spectrometer. *L. N. Grigorov.* **1985, No. 4, 917 [166].**

Controlled High-Voltage Regulator for Field Emission. *B. V. Bondarenko, A. Yu. Cherepanov, and E. P. Sheshin.* **1986, No. 1, 239 [206].**

Analysis of Field-Emission-Current Fluctuations. *B. V. Bondarenko, Yu. A. Lyangasov, A. Yu. Cherepanov, and E. P. Sheshin.* **1987, No. 2, 401 [141].**

Apparatus for Study of Statistics of Field Emission at Low Temperatures. *V. I. Maslov, G. N. Fursei, A. V. Kocheryzhenkov, and N. P. Afanas'eva.* **1987, No. 5, 1162 [133].**

Device for Automatic Recording of Variation of Electron Work Function. *V. A. Troshkin, D. P. Bernatskii, and M. V. Loginov.* **1987, No. 6, 1482 [181].**

Apparatus for Study of Electron and Photon Emission Spectra Based on ES-3201 Photoelectron Spectrometer. *A. V. Shepelev.* **1988, No. 4, 996 [145].**

Statistics of Secondary Electron Emission of Thin Foils. *M. A. Gruntman, A. A. Kozochkina, and V. B. Leonas.* **1989, No. 3, 668 [157].**

Apparatus for Study of Multiparticle Acts of Field Emission at Low Temperatures. *G. N. Fursei, A. V. Kocheryzhenkov, V. I. Maslov, A. L. Shmaev, and L. N. Borisov.* **1990, No. 1, 152 [149].**

Field-Electron Total-Energy Analyzer with Retarding Potential. *A. S. Kupryashkin, Yu. L. Rybakov, and E. P. Sheshin.* **1990, No. 1, 155 [151].**

Method for Study of Field-Emission Statistics over a Wide Current-Density Range. *V. I. Maslov, G. N. Fursei, and A. V. Kocheryzhenkov.* **1990, No. 2, 395 [145].**

Multichannel Apparatus for Study of Correlated Emission Processes in Ion Bombardment of Surfaces. *V. A. Abramenko, I. A. Derebas, G. A. Dubskii, G. Sharshmidt, and L. B. Shelyakin.* **1990, No. 4, 904 [171].**

System for Measurement of Emission Characteristics of Field Emitter. *B. Kh. Mosienkov, V. A. Seliverstov, G. A. Sharikov, and E. P. Sheshin.* **1991, No. 2, 458 [204].**

Regulated High-Voltage Supply for Study of Field Emission. *S. N. Ivanov, S. N. Shilimanov, and V. G. Shpak.* **1991, No. 4, 871 [124].**

11.3.4. Electron-beam diagnosis

Differential Calorimeter for Electron Radiation. *R. Ya. Strakovskaya, A. G. Stas', L. M. Kovalenko, and L. A. Lukashevich.* **1977, No. 5, 1467 [201].**

Measurements of the Average Energy of Electrons Taken Out to the Atmosphere in the Energy Range 0.3-1.0 MeV. *M. I. Afanas'ev.* **1978, No. 4, 854 [24].**

Measurement of Integral Characteristics of Intense Pulsed Electron Beams. *V. V. Glebov, V. A. Malafaev, and D. N. Novichkov.* **1979, No. 2, 332 [42].**

Compact, Five-Channel, Electrostatic Analyzer of Electron Energy Spectra. *N. R. Berezhetskaya and A. A. Dorofeyuk.* **1979, No. 5, 1374 [171].**

Traveling-Wave Electron Detector. *A. S. Goncharov, V. M. Kazakov, and O. V. Kozlov.* **1979, No. 5, 1376 [173].**

Measurement of the Energy Characteristics of a Nanosecond Electron Beam Extracted into the Air through a Foil. *V. G. Shpak.* **1980, No. 3, 720 [165].**

Instrument for Measuring the Energy Distribution and Angular Distribution of Electrons. *G. C. Managadze and A. D. Maiorov.* **1980, No. 4, 1038 [218].**

Dynamic Astigmatism during High-Velocity Deflection of an Electron Beam. *V. A. Miller, B. D. Smolkin, and B. M. Stepanov.* **1981, No. 1, 178 [170].**

Probe with Semiconductor Target for Investigating Electron Beams. *A. D. Sushkov and G. I. Dmitriev.* **1981, No. 3, 811 [230].**

Charge-Density Measurement for Single Nanosecond Electron-Beam Pulses. *V. I. Voroshen' and N. M. Chirkin.* **1982, No. 5, 1147 [97].**

Measurement of the Current from 60-130-keV Electrons in Air. *Yu. V. Grigor'ev and A. V. Stepanov.* **1982, No. 5, 1182 [124].**

An Achromatic Predisperser as the Input Chamber for an Electron Energy Analyzer. *O. M. Sorokin.* **1982, No. 5, 1196 [134].**

Measurement of the Beam Current of an Electron Gun and Determination of the Instrumental Function of a Four-Grid Analyzer. *B. V. Ivanov, T. Yu. Kuleshova, and A. V. Shirkov.* **1983, No. 3, 640 [136].**

Detector for Measuring the Current Density of a High-Current Microsecond Beam. *A. G. Nikonov, Yu. M. Savel'ev, and V. I. Éngelko.* **1984, No. 1, 29 [37].**

A Sensor of the Coordinates and Current of an Intense Microwave-Modulated Electron Beam. *A. A. Mikhailichenko.* **1984, No. 2, 414 [149].**

Fast-Electron Velocity Analyzer. *N. N. Veniaminov, A. K. Kuzakov, V. A. Kulikov, and N. G. Rambidi.* **1984, No. 3, 706 [167].**

Measuring the Trajectory Parameters of Charged Particles of High-Current Relativistic Electron Beams in a Magnetic Field. *A. R. Borisov, A. G. Zherlitsyn, and A. A. Sinebryukhov.* **1984, No. 4, 932 [130].**

Measurement of Currents of Strong Electron Beams of Nanosecond Duration. *N. G. Pavlovskaya and S. L. El'yash.* **1984, No. 5, 1174 [118].**

Wideband Converter of Charge of Particle Beam Incident on Faraday Cylinder to Pulse Number. *A. V. Shchagin and V. F. Lysenko.* **1985, No. 5, 1121 [120].**

Compact Primary Converter for Energy and Flux Density of Accelerated Electrons. *K. A. Vinogradov, A. V. Gubanov, and A. M. Tron'.* **1987, No. 3, 520 [28].**

Use of VÉU-1 Secondary Multiplier for Measurement of Pulsed Electron Beams. *A. N. Borisenko, V. V. Kozlyuk, and V. V. Perov.* **1988, No. 2, 412 [133].**

Shadow-Photography Method for Measurement of Beam Emittance. *V. V. Kashkovskii and V. A. Lisin.* **1988, No. 5, 1343 [207].**

Use of Thermal Probe for Potential Measurement in Vacuum and in Decompensated Electron Beams. *Yu. I. Belov, V. S. Gorshkov, S. K. Dimitrov, S. K. Zhdanov, and A. V. Makhin.* **1988, No. 6, 1524 [135].**

X-ray Diagnosis for Study of the Space-Time Characteristics of High-Current Relativistic Electron Beams. *N. I. Zaitsev, E. V. Ilyakov, Yu. V. Rodin, E. I. Soluyanov, M. Yu. Shmelev, and V. V. Yastrebov.* **1989, No. 2, 424 [150].**

Apparatus for Study of the Space-Time Structure of Nanosecond Electron Beams. *K. V. Aleksandrovich, I. A. Berezin, M. A. Kumpan, S. I. Lobov, N. G. Pavlovskaya, and S. P. Pukhov.* **1989, No. 3, 513 [23].**

Device for X-Ray Diagnosis of Radial Distribution of Electron-Beam Density. *V. M. Duvidzon, O. S. Markevich, V. V. Svintsov, V. I. Smilga, A. B. Timokhin, and D. M. Shafranov.* **1990, No. 3, 693 [192].**

11.4. Interaction of electrons with material (electron diffraction, Auger analysis)

Facility for Electron Diffraction Investigation of Supersonic Streams Flowing into a Vacuum. *E. A. Katrunova, A. P. Voitenko, G. V. Dobrovolskaya, V. I. Yaremenko, and E. T. Verkhovtseva.* **1977, No. 3, 849 [208].**

Apparatus to Investigate Excited Molecules by the Method of Photoelectron Spectroscopy. *A. I. Dolgin, V. I. Il'in, and F. I. Vilesov.* **1978, No. 2, 504 [223].**

Attachment of a Quadrupole Mass Spectrometer to the ÉG-100A Electronograph. *J. Tremmel, S. Bohatka, I. Berec, and I. Hartittai.* **1978, No. 4, 1118 [251].**

Cryogenic Trap for the EMR-100 Electronograph. *S. I. Kovalenko and N. V. Krainyukova.* **1978, No. 6, 1663 [186].**

Threshold-Potential Spectrometer Based on an Auger Electron Spectrometer. *V. T. Cherepin, M. A. Vasil'ev, O. A. Yakubtsov, Yu. N. Ivashchenko, and E. F. Klimchuk.* **1979, No. 1, 227 [214].**

Evaporator for Electron Diffraction Analysis of Substances in the Gaseous Phase. *M. V. Popik, L. V. Vilkov, V. S. Mastryukov, and A. V. Golubinskii.* **1979, No. 2, 591 [274].**

Fabrication of Spherical Grids for an Electronograph. *B. M. Zykov.* **1980, No. 2, 536 [221].**

Measurement of the Relative Scattering Cross Section of Fast Electrons by Gas Molecules. *V. I. Bazhanov, E. L. Ul'yanova, and N. C. Rambidi.* **1980, No. 4, 975 [160].**

Method of Investigating the Heating of Thin Metal Films by an Electron Beam. *A. T. Pugachev and Yu. A. Volkov.* **1980, No. 4, 1002 [185].**

Obtaining Electron Diffraction Patterns at Low Vapor Pressures of the Substance Studied. *A. A. Ivanov and E. Z. Zasorin.* **1980, No. 6, 1503 [170].**

A Multiple Specimen Holder for an Electron-Diffraction Camera. *L. D. Pokrovskii.* **1981, No. 2, 531 [228].**

Equipment for Recording Auger Spectra Using a Quasispherical Analyzer. *Yu. I. Nardaya, I. M. Ovchinnikov, and K. F. Potapov.* **1981, No. 5, 1261 [153].**

Use of the EVR-1 Electron Diffraction Camera for Studying Interaction of Electron Beams with Material under Conditions of Reverse Scattering. *Yu. D. Kornyushkin and B. N. Smirnov.* **1981, No. 5, 1314 [200].**

Secondary Electron Spectrometer with Angular Resolution for Studying Single-Crystal Surfaces. *I. I. Pronin, M. V. Gomoyunova, D. P. Bernatskii, and S. L. Zaslavskii.* **1982, No. 1, 198 [175].**

Sample Holder for a Slow-Electron Diffraction Camera. *S. I. Kovalenko and S. A. Maiboroda.* **1982, No. 2, 498 [197].**

Use of an Electron-Diffraction Camera to Observe the Kinetics of Structural Changes under High-Power Light Pulses. *N. A. Sainov, M. F. Galyautdinov, I. B. Khaibullin, and E. I. Shtyrkov.* **1982, No. 3, 730 [193].**

The Recording System of a Slow-Electron Spectrometer. *O. M. Artamonov, V. M. Vasil'ev, O. M. Smirnov, and A. N. Terekhov.* **1982, No. 5, 1194 [133].**

Instrument for Examining the Polarization of Low-Energy Electrons Interacting with a Solid. *I. A. Pchelkin and G. K. Zyryanov.* **1982, No. 6, 1446 [119].**

Modulation of Reflections in Low-Energy Electron Diffraction. *L. N. Babanskaya, M. A. Vasil'ev, S. D. Gorodetskii, and V. T. Cherepin.* **1983, No. 1, 148 [126].**

Device for Calibrating Electron Spectrometers. *O. M. Sorokin and B. D. Matsoyan.* **1983, No. 5, 1178 [163].**

Automatic Energy Control in Low-Energy Electron Diffraction. *L. N. Babanskaya, M. A. Vasil'ev, S. D. Gorodetskii, and A. S. Filippov.* **1984, No. 2, 418 [153].**

Upgrading the ÉMR-100 Electron-Diffraction Camera for Use with Gases. *G. V. Girichev, A. N. Utkin, and Yu. F. Revichev.* **1984, No. 2, 457 [187].**

Auger Spectroscopy of Thin Metal Filaments. *A. V. Nakaryakov, A. S. Raspopin, A. M. Shestakov, and S. F. Borisov.* **1984, No. 3, 710 [170].**

Regulated Power Supplies for Slow-Electron Diffraction Analyzer. *N. I. Plyusnin, S. A. Lobachev, and N. G. Galkin.* **1984, No. 5, 1196 [138].**

Specimen-Exchange Device for an ÉS2401 Electron Spectrometer. *N. I. Zaretskii and E. A. Tyavlovskaya.* **1984, No. 6, 1511 [190].**

Metal-and-Glass Low-Voltage Electron Diffractometer. *S. A. Knyazev and Yu. B. Vymorkov.* **1985, No. 3, 697 [176].**

Apparatus for Auger Spectroscopy with Layered Sputtering. *V. A. Pirogov, A. V. Kozhevnikov, and V. I. Kravtsov.* **1985, No. 4, 911 [160].**

Automated Study of Elementary Processes in Collisions of Electrons with Atoms and Ions. *A. I. Dashchenko and V. I. Frontov.* **1985, No. 6, 1305 [64].**

Seal for Specimen-Preparation Chamber of ÉS-2401 Electron Spectrometer. *N. I. Zaretskii.* **1985, No. 6, 1467 [204].**

Vapor Trap for Vacuum Chamber of Gas Electron-Diffraction Camera. *M. V. Popik, A. V. Golubinskii, and L. V. Vilkov.* **1986, No. 2, 499 [216].**

Apparatus for Electron-Beam Excitation of Gases and Metal Vapors. *A. M. Rybalov, A. N. Soldatov, V. I. Solomonov, E. V. Sharabarin, V. M. Muratov, and N. K. Kapishnikov.* **1986, No. 4, 892 [127].**

Apparatus for Study of Molecular Structure of Valence-Unsaturated Compounds. *G. V. Girichev, S. A. Shlykov, and Yu. F. Revichev.* **1986, No. 4, 939 [167].**

Apparatus for Measurement of Electronic-Ionization Cross Sections of Metal Atoms. *D. G. Golovach, V. I. Rakhovskii, and V. M. Shustryakov.* **1986, No. 6, 1396 [141].**

High-Transmission High-Luminance Energy Analyzer with Retarding Field. *V. I. Kleimenov, L. N. Gall', G. S. Medynskii, and Yu. I. Khasin.* **1986, No. 6, 1399 [144].**

Use of Modulation in Electron Diffraction Studies. *O. N. Beloshov and M. I. Tsindlekht.* **1987, No. 1, 214 [195].**

Optoisolator for Auger Spectrometer. *V. A. Troshkin and D. P. Bernatskii.* **1987, No. 5, 1139 [114].**

Increased Scanning Area for an Auger Spectrometer with Cylindrical Mirror Analyzer. *V. V. Zashkvara, V. S. Red'kin, V. F. Makovskii, and V. E. Masyagin.* **1988, No. 1, 170 [148].**

Use of Mira-2D Apparatus as Electron-Beam Source in Pulse Spectroscopy. *A. L. Krymov, L. V. Viktorov, and V. B. Burtnik.* **1988, No. 3, 719 [169].**

Sensor for Measurement of Three-Dimensional Rate Profile for Gas Ionization by an Electron Beam. *B. Yu. Adamyak, F. I. Vysikailo, and V. I. Sen'.* **1988, No. 4, 977 [130].**

Two-Channel Ion-Electron Spectrometer for Study of Solid Surfaces. *I. Yu. Panichkin, A. L. Pivovarov, S. P. Chenakin, V. T. Cherepin, and I. N. Yatsuk.* **1988, No. 6, 1565 [169].**

Device for Insertion of Control Specimen into ÉS-2401 Electron Spectrometer. *N. I. Zaretskii.* **1989, No. 1, 240 [210].**

Spectrometer of Characteristic Energy Losses of Fast Electrons in Thin-Film Specimens. *M. V. Zharnikov, V. D. Gorobchenko, and G. V. Pilyagin.* **1990, No. 2, 383 [135].**

Automatic Recording of Energy Profiles of Slow-Electron Diffraction Reflections. *M. A. Vasil'ev, S. D. Gorodetskii, and A. M. Moseichuk.* **1990, No. 4, 946 [205].**

Use of Electron Gun with Oxide Cathode in Reflection High-Energy-Electron Diffraction System. *B. Z. Kanter and A. I. Nikiforov.* **1990, No. 5, 1150 [165].**

Photoion–Threshold-Photoelectron Coincidence Spectrometer. *A. V. Golovin and P. G. Cheremnykh.* **1991, No. 2, 385 [141].**

Induction Heating of Specimens in Electron Spectrometers. *V. I. Kozhevnikov, F. Z. Gil'mutdinov, O. M. Kanunnikova, D. V. Merzlyakov, M. F. Sorokina, and A. V. Antonov.* **1991, No. 2, 451 [199].**

Device for Mechanical Cleaning of Specimens in Electron Spectrometers. *V. I. Kozhevnikov, F. Z. Gil'mutdinov, O. M. Kanunnikova, and M. F. Sorokina.* **1991, No. 2, 453 [200].**

Electron Spectrometer with Monochromator and Increased Specimen-Scanning Area. *Yu. K. Golikov, S. N. Davydov, and V. V. Korablev.* **1991, No. 4, 893 [143].**

Backscattered-Electron Detector for Auger Microscope Probes. *A. L. Sterkhov and Yu. V. Rats.* **1991, No. 5, 1173 [172].**

11.5. Plasma devices

A Spiral Plasma Discharge as an Element in a Measuring Device. *Yu. I. Iorish and A. I. Rutman.* **1982, No. 5, 1185 [126].**

Plasma-Dynamic Radiation Source. *A. M. Semenov.* **1991, No. 5, 1188 [184].**

11.5.1. Plasma excitation

Semiself-Maintained Discharge Device with Ionizing Beam Regeneration. *L. P. Fominskii.* **1977, No. 1, 213 [186].**

Unit for Electrically Excited Preionization of Gas with Electron-Beam Recuperation. *L. P. Fominskii and É. V. Gorozhankin.* **1977, No. 2, 504 [159].**

Cathode Assembly for Gas-Discharge Instruments. *N. F. Lazarev and D. B. Arshba.* **1979, No. 2, 528 [218].**

Power Supply for a Plasma Emitter. *N. N. Koval' and M. B. Nigof.* **1980, No. 6, 1444 [121].**

A Generator of Toroidal Plasma Vortices. *A. A. Luchaninov, A. M. Rozhkov, N. D. Sereda, and N. P. Sokolov.* **1981, No. 2, 541 [237].**

Ion Source Protection in the OGRA-4 Plant. *N. V. Matveev and V. A. Obysov.* **1984, No. 1, 164 [149].**

A Nozzle Array and Ballast Resistance for Producing a Glow Discharge in a Gas Flow. *V. I. Alferov, A. S. Bushmin, and L. M. Dmitriev.* **1985, No. 1, 155 [143].**

Low-Pressure Source of Nonequilibrium Plasma. *E. T. Protasevich.* **1986, No. 5, 1151 [152].**

Electroerosion Source of Low-Temperature Plasma with Increased Stable Operating Life. *V. G. Novikov and R. Tarashkevich.* **1986, No. 5, 1153 [153].**

Z-Pinch with Pulsed Gas Admission. *A. N. Mokeev and V. V. Prut.* **1986, No. 6, 1409 [153].**

Power Supply of a Plasma Emitter with Adjustable Parameters. *V. B. Mel'nikov.* **1987, No. 3, 650 [137].**

Electron Gun for Active Plasma Experiments. *B. A. Snedkov, A. V. Trubitsyn, V. S. Balyuk, and V. P. Dzyuba.* **1988, No. 2, 395 [119].**

Pulsed Operation of Magnetohydrodynamic Plasma Accelerator. *Yu. V. Kubarev, A. I. Livshits, A. A. Martinson, Yu. A. Romanovskii, S. E. Rosinskii, and Yu. N. Tashaev.* **1991, No. 1, 177 [174].**

Directional Plasma Source. *V. V. Saenko, A. A. Derkach, and G. N. Veremeichenko.* **1991, No. 1, 183 [179].**

Pulsed Slot Plasmatron. *V. P. Belosheev.* **1991, No. 1, 186 [181].**

11.5.2. Plasma diagnosis

Magnetic Pickup for the Measurement of Spontaneous Magnetic Fields near a Laser Plasma. *V. V. Korobkin and S. L. Motylev.* **1978, No. 5, 1366 [189].**

Use of Scanistors in Diagnostics of Moving Plasma. *K. A. Zhdanov, V. G. Zatsepin, B. V. Lazarev, and É. A. Tishchenko.* **1980, No. 1, 158 [155].**

Flow-Speed Measurement for a Plasma from an Arc Plasmatron. *A. I. Chmil' and E. G. Shustin.* **1980, No. 6, 1447 [124].**

Information Collection and Mapping System for Tomographic Plasma Flow Investigations. *O. V. Filonin and V. F. Yavtsev.* **1984, No. 2, 400 [136].**

Stroboscopic Method for Study of Transient Plasma Processes. *V. V. Tikhomirov and V. V. Shkurkin.* **1984, No. 5, 1203 [144].**

A Local-Velocity Meter for a Hypersonic Plasma Jet. *A. A. Knyazev, N. B. Lerner, and K. I. Svinolupov.* **1985, No. 2, 445 [168].**

Fast-Scan Fourier Spectrometer for Diagnosis of High-Temperature Plasma. *D. K. Akulina, V. B. Lazarev, V. I. Lapshin, V. N. Leonov, S. I. Fedorenko, and O. I. Fedyanin.* **1985, No. 4, 914 [163].**

Apparatus for Study of Gas-Discharge Impedance. *V. E. Privalov and E. A. Smirnov.* **1985, No. 6, 1377 [127].**

Thermoelectric Detector for Measurement of Ion and X-ray Energies of Laser Plasma. *V. M. Komarov, A. V. Mezenov, V. M. Migel', and N. V. Ponomareva.* **1987, No. 2, 487 [210].**

Automated Dispersion Interferometer-Polarimeter for Study of the Ionosphere and Radio-Wave Propagation. *G. K. Solodovnikov, V. M. Russkin, and A. V. Savenkov.* **1987, No. 5, 1130 [105].**

Measurement of Pulse Pressure in Plasma by Crusher Gauge. *E. V. Kalachnikov and P. N. Rogovtsev.* **1987, No. 6, 1489 [186].**

Method for Measurement of Thermal-Flux Distribution in Low-Temperature Plasma. *P. P. Kulik, Yu. M. Agrikov, A. M. Antropov, P. N. Laptev, O. V. Sinyagin, and I. M. Tokmulin.* **1988, No. 2, 410 [131].**

Calorimeters for Direct Measurement of the Energy of Divergent Laser Plasma. *V. M. Komarov.* **1989, No. 3, 686 [172].**

Study of Small-Scale Plasma Oscillations in Tokamak by Means of Enhanced Microwave Scattering. *V. O. Aleksandrov, V. N. Budnikov, V. K. Korneenkov, K. M. Novik, A. D. Piliya, and A. Yu. Stepanov.* **1989, No. 4, 911 [158].**

Image-Tube Camera for Simultaneous Recording of X-Ray and Ion Radiation of Laser Plasma. *B. E. Dashevskii, V. A. Podvyaznikov, A. V. Prokhindeev, A. M. Prokhorov, and V. K. Chevokin.* **1989, No. 4, 952 [194].**

Mass-Spectrometric Apparatus for Study of Excited Neutral and Ion Components of Low-Temperature Plasma. *R. T. Malkhasyan and G. L. Movsesyan.* **1991, No. 4, 873 [127].**

11.5.2.1. Probes

"Plasma" Probe for Measuring the Plasma Potential and Its Fluctuations. *N. F. Balaev.* **1978, No. 2, 476 [197].**

"Shooting" Probe for the Measurement of Plasma Parameters. *A. M. Zimin, V. I. Lisitsin, A. Yu. Pavlov, and V. I. Khvesyuk.* **1978, No. 5, 1419 [238].**

Automatic System for Recording and Processing Probe Characteristics in a Low-Temperature Plasma. *S. V. Kiryukhin, V. S. Lozyuk, A. Ya. Oleinikov, A. Ya. Smirnov, A. V. Stepkin, N. A. Tikhomirov, A. I. Chmil', and E. G. Shustin.* **1979, No. 5, 1287 [93].**

Registration of Probe Characteristics in Pulse Discharges with Time Resolution to 50 nsec. *B. I. Tsirkel', L. I. Vainberg, G. A. Dyuzhev, A. M. Martsinovskii, and E. A. Startsev.* **1981, No. 6, 1482 [141].**

Mobile Probe for Examining a Dense Plasma. *V. N. Kovalev, A. A. Lyapin, and M. M. Chursin.* **1982, No. 4, 979 [180].**

Dual-Probe Optoisolator. *N. K. Berezhetskaya, E. F. Bol'shakov, A. A. Dorofeyuk, and A. V. Eletskii.* **1983, No. 6, 1391 [127].**

Circuit for the Excitation and Measurement of the Characteristics of Pulsed Electrostatic Probes. *V. S. Belkin.* **1984, No. 2, 423 [158].**

Effect of Various Methods of Surface Cleaning of Langmuir Probe on Its Volt-Ampere Characteristic. *P. A. Bagryanskii and E. V. Shun'ko.* **1986, No. 2, 446 [166].**

Electrical Isolator for Plasma-Diagnosis Probe. *V. V. Tikhomirov and V. V. Shkurkin.* **1988, No. 1, 241 [209].**

11.5.2.2. Optical methods

Device with Image Converter for Low-Temperature Plasma Diagnosis by Scattering Method. *L. N. Pyatnitskii, V. S. Zhivopistsev, and V. V. Korobkin.* **1977, No. 5, 1416 [160].**

Use of High-Quality Crystals for X-Ray Spectroscopic Diagnostics of a Laser Plasma. *K. Getts, Yu. A. Mikhailov, S. A. Pikuz, G. V. Sklizkov, A. Ya. Faenov, S. I. Fedotov, É. Ferster, and P. Tsaumzail'.* **1978, No. 3, 771 [201].**

Measurement of the X-Ray Emission Spectrum of a Plasma Focus. *V. N. Suvorov, N. A. Tulin, and V. I. Potikha.* **1979, No. 2, 579 [264].**

Use of Crystals of Alkali Metal Biphthalates and Bismuth Titanium Oxide Crystals for Registration of X-Ray Plasma Emission Spectra. *M. L. Barsukova, G. S. Belikova, L. M. Belyaev, V. A. Boiko, A. B. Gil'varg, S. A. Pikuz, A. Ya. Faenov, and A. Yu Chugunov.* **1980, No. 4, 1028 [209].**

System for Measuring Electron Temperature of Stellarator-2 Plasma by Thomson Scattering of Neodymium Laser Second Harmonic. *M. A. Blokh.* **1980, No. 5, 1248 [179].**

Recording Device for Plasma Diagnostics Using Thompson Scattering Measurements. *P. M. Kosarev and Yu. A. Tarabrin.* **1982, No. 3, 677 [150].**

Properties of Inorganic Scintillation Detectors Used in Hot Plasma X-Ray Diagnostics. *V. V. Averkiev, V. K. Lyapidevskii, V. A. Prorvich, and A. V. Sartori.* **1982, No. 3, 680 [152].**

Active Calibration of a Michelson Interferometer for Plasma Density Measurements. *V. S. Burmasov, E. P. Kruglyakov, and Yu. A. Tsidulko.* **1982, No. 3, 683 [155].**

Interferometer to Measure Electron Concentration in a Strongly Fluctuating Plasma. *M. G. Potapov and S. P. Kozharskii.* **1982, No. 5, 1188 [128].**

A Method of Examining the X-Ray Pulses from a Plasma Focus System. *F. R. Astvatsatur'yan, P. G. Bobyr', V. A. Gribkov, A. V. Dubrovskii, and P. K. Skorobogatov.* **1982, No. 5, 1258 [183].**

Plasma-Stream Radiation Intensity Recorder. *L. G. Val'skaya, S. Kh. Il'yasova, V. S. Klubnikin, and O. M. Mikhailov.* **1983, No. 6, 1397 [132].**

Use of Multichannel Spectrum Analyzer in Plasma Research. *V. A. Pis'menetskii, P. M. Podruzhnikov, V. V. Rozhdestvenskii, A. V. Sapozhnikov, and M. G. Shats.* **1988, No. 3, 728 [175].**

Holographic Apparatus for Plasma Diagnosis at Many Wavelengths Simultaneously. *A. G. Zhiglinskii, G. G. Kund, A. O. Morozov, and A. N. Samokhin.* **1988, No. 6, 1533 [142].**

Use of SFER-2 High-Speed Image-Converter Chronograph in Experiments in Fast-Liner Collapse. *V. V. Borisov, A. I. Veretennikov, V. D. Vikharev, V. I. Zaitsev, V. P. Zotov, A. E. Leont'evskii, V. N. Mikhailov, Yu. K. Slavnov, V. P. Smirnov, Yu. B. Usov, E. D. Khromochkin, and V. Ya. Tsarfin.* **1989, No. 1, 246 [215].**

Multichannel System for Registration of Plasma Optical Radiation with Real-Time Sensitivity Adjustment. *V. S. Belkin, V. G. Sokolov, and I. Ya. Timoshin.* **1989, No. 4, 950 [192].**

Measurement of X-Ray Spectrum of Micropinch Discharge by Multichannel Scintillation Spectrometer. *V. V. Averkiev, A. N. Dolgov, V. K. Lyapidevskii, A. S. Savelov, and G. Kh. Salakhutdinov.* **1991, No. 2, 421 [173].**

11.5.2.3. Corpuscular methods

Diagnostic Hydrogen-Atom Injector. *G. I. Dimov, G. V. Roslyakov, and V. Ya. Savkin.* **1977, No. 4, 953 [29].**

Device for "Firing" Macroparticles into a Hot Plasma. *B. V. Kuteev and S. V. Shatalin.* **1979, No. 5, 1365 [163].**

Detector for Registration of Ions, Electrons, and Neutral Particles of Laser Plasma. *V. M. Komarov.* **1987, No. 1, 175 [161].**

Contactless Method for Study of Radio-Frequency Plasma Fields. *E. M. Busheva, V. L. Gol'tsman, Yu. V. Zadiraka, V. A. Silin, R. Z. Faizullin, and V. B. Khavaev.* **1987, No. 1, 185 [170].**

Measurement of Plasma Currents Induced by Injection of Relativistic Electron Beam into Gas. *Yu. F. Bondar', A. A. Goman'ko, A. A. Ermakov, A. I. Kuz'min, G. P. Mkheidze, and A. A. Savin.* **1987, No. 6, 1431 [139].**

Apparatus for Study of Electric-Field Distribution in Plasma. *Z. A. Oganezov, L. S. Timoshenko, and V. K. Tskhakaya.* **1987, No. 6, 1435 [142].**

Measurement of Beam Part of Electron Energy Distribution in Anisotropic Plasma. *A. Kh. Muradov.* **1988, No. 1, 172 [150].**

Use of Electrostatic Energy Analyzer for Study of Ion-Plasma Source. *A. I. Fomichev, A. I. Kanaev, and V. M. Sharapov.* **1989, No. 2, 439 [162].**

Laser-Triggered Electron Accelerator for Study of Beam Plasma by Optical Methods. *S. N. Kabanov, A. A. Korolev, V. E. Kul'beda, A. I. Razumovskii, and V. A. Trukhin.* **1990, No. 2, 404 [154].**

Compact Permanent-Magnet Particle Energy-Spectrum and Charge-State Analyzers for Diagnosis of High-Temperature Plasma. *A. A. Gorbunov, M. A. Gulin, A. N. Dolgov, O. V. Nikolaev, and A. S. Savelov.* **1990, No. 5, 1027 [56].**

Self-Contained Electron Injector for Plasma Research. *S. B. Goryachev, R. M. Lapik, I. N. Meshkov, V. N. Mozgunov, and E. M. Syresin.* **1991, No. 3, 615 [128].**

Corpuscular Method for Measurement of Electric Field in Unmagnetized Plasma. *M. V. Kozintseva, A. S. Lipatov, and V. K. Kharchevnikov.* **1991, No. 5, 1133 [138].**

11.5.3. Electrical discharge

Apparatus for Measuring Speed of an Electrical Discharge. *V. T. Kazub and G. S. Korshunov.* **1978, No. 1, 151 [147].**

Synchronization of Optical Discharge Image with Its Electrical Parameters. *V. K. Bocharov, E. A. Sukhomlin, and V. A. Kravchenko.* **1978, No. 6, 1610 [138].**

Opticomechanical Aneroid for Determining Energy Balance in a Discharge. *V. A. Andrianov, S. V. Pashkin, and P. I. Peretyat'ko.* **1980, No. 4, 1034 [215].**

Circuit for Exciting a Combined Discharge in Gaseous Media. *Yu. I. Bychkov, V. V. Osipov, and V. A. Tel'nov.* **1981, No. 1, 173 [165].**

Multiple Discharge Interrupter. *V. S. Belkin and A. S. Donin.* **1986, No. 6, 1379 [127].**

Photoelectric Meter of Time Intervals between Spark-Discharge Flashes. *E. A. Gordeenya and V. G. Filippov.* **1987, No. 2, 389 [131].**

Generation of Subnanosecond Electron and X-ray Pulses by High-Voltage Discharges in the Atmosphere. *L. P. Babich and T. V. Loiko.* **1989, No. 2, 468 [188].**

X-Ray Preionizer for Wide-Aperture Gas-Discharge Systems. *V. G. Geiman, S. A. Genkin, and Yu. D. Korolev.* **1990, No. 5, 1215 [220].**

11.5.4. Plasma technological apparatuses

Control of Etching Processes in a Low-Temperature Gas-Discharge Plasma (Survey). *B. S. Danilin, V. Yu. Kireev, V. A. Kaplin, and É. M. Vrublevskii.* **1982, No. 1, 7 [13].**

Apparatus to Rid the Plasma of a Vacuum Arc of Macroparticles. *I. I. Aksenov, V. A. Belous, V. G. Padalka, and V. M. Khoroshikh.* **1978, No. 5, 1416 [236].**

Ignition of a Vacuum Arc in Stationary Sources of a Metal Plasma from an Autonomous Plasma Injector. *I. I. Aksenov and V. A. Belous.* **1979, No. 3, 785 [160].**

Control of the Motion of the Cathode Spot of a Vacuum Arc. *L. P. Sablev.* **1979, No. 4, 1174 [268].**

Plasma Evaporator. *V. A. Saenko, A. I. Vladimirov, and G. N. Veremeichenko.* **1983, No. 4, 926 [166].**

Pulsed Carbon-Plasma Source for Production Processes. *A. I. Maslov, G. K. Dmitriev, and Yu. D. Chistyakov.* **1985, No. 3, 662 [146].**

Arc Particle Source. *A. F. Sorokin.* **1985, No. 5, 1144 [141].**

Implantation Source of Alkali and Alkali-Earth Metal Ions . *G. V. Afanas'ev, Z. Sh. Dzhikiya, E. M. Diasamidze, and I. A. Tsekvava.* **1986, No. 2, 432 [153].**

Metal-Plasma Source. *A. I. Vladimirov, S. V. Goryuk, and V. A. Saenko.* **1987, No. 2, 395 [136].**

Wide-Aperture Ion Source for Implantation of Metals. *A. I. Aksenov, S. P. Bugaev, A. V. Dats, N. G. Pankovets, and A. M. Tolopa.* **1988, No. 4, 980 [133].**

Wide-Aperture Ion-Electron-Plasma Source. *A. I. Aksenov, M. I. Anuchin, S. P. Bugaev, N. G. Pankovets, and A. M. Tolopa.* **1988, No. 5, 1248 [134].**

Microwave Plasma Ion Source. *R. K. Yafarov, S. A. Terent'ev, A. P. Telitsyn, and A. O. Balakin.* **1989, No. 3, 651 [142].**

Production of Plasma from Vapors of Solids. *V. A. Saenko.* **1990, No. 4, 908 [174].**

Source of Metal-Vapor Plasma with Axial Anode. *A. A. Derkach and V. A. Saenko.* **1990, No. 6, 1421 [174].**

11.6. Positron beams

Methods and Apparatus for Measurement of Positron Lifetime (Survey). *N. P. Valuev and A. N. Zhikharev.* **1986, No. 2, 263 [7].**

An Elliptical Electrostatic Reflector for Generating a Beam of Low-Energy Positrons. *P. U. Arifov, L. A. Avanov, Sh. F. Ismailov, A. A. Kotov, M. V. Kremkov, N. V. Makov, V. V. Pokrovskii, R. A. Sadykov, and A. V. Shevchenko.* **1981, No. 5, 1258 [150].**

Positron-Annihilation Apparatus for Layerwise Analysis of Defects in Solids. *E. B. Klopikov, Yu. V. Petrikin, A. N. Semenikhin, and A. A. Suvorov.* **1986, No. 2, 301 [39].**

Detector for Positron-Emission Tomograph. *V. G. Vasil'chenko, A. V. Konoplyannikov, S. L. Kosmatov, E. A. Krivandina, M. M. Litvinov, V. I. Rykalin, O. B. Ryazantsev, B. P. Sobolev, and M. M. Soldatov.* **1991, No. 3, 693 [198].**

12. MASS SPECTROMETRY

Mass-Spectrometric Methods and Devices Using Periodic Motion of Ions along Closed Trajectories (Review). *L. N. Linnik.* **1977, No. 4, 929 [7].**

Analysis of Evaporation of Composite Semiconductors with the MI1201 Mass Spectrometer. *I. P. Sharkan', S. V. Mikulaninets, N. I. Dovgoshei, and Yu. Yu. Firtsak.* **1980, No. 5, 1235 [166].**

Apparatus for Determining the Photodesorption Efficiency of Molecules by a Pulsed Method. *R. B. Tagirov, N. A. Zyuzin, N. I. Kuksinskii, and S. A. Paimerov.* **1981, No. 2, 467 [170].**

A Secondary-Ion Mass-Spectrometer System with High Depth Resolution. *V. V. Yagzhev and V. V. Marusin.* **1982, No. 6, 1458 [129].**

Deposition of Aerosol Particles from a Gas Flow for Mass Spectrometry. *A. A. Sysoev, R. S. Khafizov, Yu. T. Kalinin, S. N. Borisov, and A. N. Markarov.* **1983, No. 6, 1409 [143].**

Apparatus for Simultaneous Mass and Energy Analysis of Desorption Products Excited by a Pulsed Laser. *É. F. Lazneva and A. M. Turiev.* **1984, No. 4, 926 [125].**

Linear Laser Mass Reflectron. *I. D. Kovalev, N. V. Larin, A. I. Suchkov, A. M. Voronov, and P. A. Shmonin.* **1985, No. 6, 1391 [139].**

Spectrometer System with Angular Resolution of 2-6° for Study of Solid Surfaces. *V. T. Cherepin, A. A. Kosyachkov, I. N. Dubinskii, and V. É. Is'yanov.* **1986, No. 1, 176 [155].**

Apparatus for Study of Laser Sublimation of Low-Temperature Matrixes. *V. Yu. Orlov and V. K. Potapov.* **1986, No. 4, 966 [191].**

Ion-Kinetic-Energy Spectrometer Based on MKh-1311 Mass Spectrometer. *G. S. Medynskii, M. E. Akopyan, L. N. Gall', V. I. Kleimenov, K. O. Kallistov, Yu. L. Sergeev, D. V. Togatov, A. B. Chistyakov, and Yu. I. Khasin.* **1987, No. 1, 172 [158].**

Apparatus based on MSKh-5 Mass Spectrometer for Study of Ionization of Metal Atoms. *P. N. Volovich, M. M. Chiriban, and L. L. Shimon.* **1988, No. 6, 1528 [138].**

Secondary-Ion Microanalyzer with Double Focusing. *N. Kh. Dzhemilev, A. D. Bekkerman, V. M. Rotshtein, and Yu. M. Tsai.* **1990, No. 3, 638 [145].**

Reference for Energy-Scale Calibration in Mass Spectrometry of Resonance Electron Capture. *V. A. Mazunov, Yu. V. Vasil'ev, and M. V. Muftakhov.* **1991, No. 2, 378 [136].**

Transmission in Quadrupole Mass Filter in Intermediate Stability Region. *N. V. Konenkov and S. S. Silakov.* **1991, No. 2, 380 [138].**

12.1. Isotopic analysis

Determination of Isotopic Composition of Elements in Microvolumes of a Solid. *M. Sh. Kaviladze, T. A. Melashvili, and M. S. Kviriya.* **1977, No. 2, 512 [166].**

Isotopic Analysis of Calcium. *K. G. Ordzhonikidze, M. N. Kerner, V. V. Birkaya, and L. P. Parulava.* **1979, No. 5, 1383 [179].**

Ion Source for Microquantitative Isotopic Analysis of the Transuranic Elements. *V. V. Kalygin, V. Ya. Gabeskiriya, V. I. Raiko, Yu. I. Pimonov, V. S. Prokopenko, and V. M. Prokop'ev.* **1980, No. 4, 987 [171].**

Low-Background Apparatus for Measuring ^3He, ^4He, T, and H_2. *B. A. Mamyrin, Yu. A. Akulov, L. V. Khabarin, and V. S. Yudenich.* **1982, No. 2, 444 [151].**

Isotopic Analysis of Transplutonium Elements by Mass Spectrometer with One-Dimensional Position-Sensitive Detector. *B. N. Belyaev, V. T. Tuz, and G. A. Firsanov.* **1988, No. 5, 1231 [121].**

12.2. Gas and plasma analysis

Mass-Spectrometric Installation for Analysis of Gaseous Products of Breakdown of Polymers by a High-Frequency Plasma. *I. A. Tikhomirov, G. S. Tikhonov, and V. A. Klimenov.* **1977, No. 4, 1154 [213].**

Device for Mass-Spectroscopic Analysis of Microconcentrations of Gaseous Impurities in Nonconducting Materials. *I. L. Agafonov and A. I. Kuz'michev.* **1979, No. 3, 797 [171].**

The MI9302 Mass Spectrometer for the Analysis of Microscopic Amounts of Inert and Chemically Active Gases. *B. K. Alekseichuk, A. S. Anufriev, G. I. Afonina, A. M. Bronshtein, Yu. M. Efis, V. A. Zagulin, E. M. Kleshkov, B. A. Mamyrin, V. T. Nenarokomova, V. P. Pavlov, V. A. Pavlenko, and A. E. Rafal'son.* **1979, No. 4, 1103 [206].**

Ionizer for Mass-Spectrometric Analysis of the Neutral Component of a Plasma. *V. Ya. Chernyak.* **1980, No. 1, 196 [190].**

Monopole Mass Spectrometer for the Investigation of a Nonstationary Plasma. *Yu. I. Chutov, V. N. Podol'skii, and V. Yu. Palkin.* **1981, No. 4, 1010 [174].**

A ROMS-2 Mass-Spectrometer System for Analyzing a Gas-Discharge Plasma. *V. P. Sokol'skii and A. A. Perov.* **1984, No. 1, 182 [167].**

An Inlet System Containing a Molecular Beam and Reactor for Mass-Spectral Analysis of Gaseous Products from the Pyrolysis of Condensed Substances. *V. A. Zavadskii, B. Ya. Kolesnikov, and G. I. Ksandopulo.* **1984, No. 2, 432 [165].**

Admission of Volatile Organic Impurities from Water into a Mass Spectrometer. *A. A. Rivlin, V. G. Karachevtsev, N. N. Ledneva, K. K. Man'kovskii, and Kh. I. Pruger.* **1984, No. 3, 766 [218].**

Improvement of Reproducibility of Quantitative Mass Spectral Analysis of Gases. *B. A. Kaleganov.* **1986, No. 4, 906 [140].**

Eight-Channel Ion Mass and Energy Analyzer for Study of Pulsed Plasma. *V. I. Mikhailov, I. N. Slivkov, and G. L. Gromov.* **1987, No. 6, 1439 [145].**

Simple Method for Residual-Gas Monitoring in Secondary-Emission Mass Spectrometry. *G. D. Tantsyrev and S. V. Sokolan.* **1989, No. 4, 930 [174].**

Ion Transport through Needle Valve for Mass Spectrometry of Vacuum-Arc Plasma. *Zh. A. Mrochek, I. A. Romanchuk, and M. M. Semenkevich.* **1991, No. 4, 880 [133].**

12.3. Mass spectrometers

Intrinsic Background of Quadrupole Mass Spectrometers. *A. A. Sysoev, I. M. Islamov, and R. S. Khafizov.* **1977, No. 1, 226 [197].**

MI-1305 Spectrometer with an Ion Probe and an Energy Analyzer for Studying Solids. *M. A. Vasil'ev, A. D. Krasyuk, and V. T. Cherepin.* **1977, No. 3, 806 [173].**

Attachment Containing Electrostatic Analyzer for Mass Spectrometers of a Single Series. *V. P. Ivanov, A. A. Sysoev, and G. A. Samsonov.* **1977, No. 4, 1156 [215].**

Quadrupole Mass Spectrometer for Recording Beams of Light Atomic Particles. *B. V. Zubkov and E. N. Evlanov.* **1977, No. 5, 1413 [158].**

Three-Dimensional Quadrupole Mass Spectrometer with Elliptical Electrodes. *E. P. Sheretov, V. F. Samodurov, B. I. Kolotilin, N. K. Tuzhilkin, and N. V. Veselkin.* **1978, No. 6, 1584 [115].**

Inverse-Magnetron Mass Spectrometer. *V. N. Pakulin.* **1979, No. 2, 540 [229].**

Calculation of Cylindrical Radio-Frequency Mass Analyzer. *V. N. Pakulin.* **1979, No. 3, 799 [173].**

Selective Recording of the Mass Spectra of Doubly Charged Ions on a Magnetic Mass Spectrometer. *G. D. Tantsyrev, E. N. Nikolaev, and V. A. Saraev.* **1980, No. 3, 730 [173].**

Liquid Analysis in a Mass Spectrometer with a Spark Source. *K. G. Ordzhonikidze, D. S. Nabichvrishvili, Yu. P. Osei, and A. A. Lysyakov.* **1982, No. 1, 185 [164].**

Calibration of a Mass Spectrometer in Static Operation. *E. V. Popov and A. Ya. Kupryazhkin.* **1982, No. 4, 994 [194].**

Magnetic Discharge Mass Spectrometer. *V. N. Pakulin.* **1983, No. 1, 160 [134].**

Identification of Ions by Their Masses in Multichannel Energy Analyzers. *M. A. Gruntman.* **1983, No. 4, 943 [182].**

Compact Time-of-Flight Mass Spectrometer. *A. S. Belov, S. A. Kubalov, V. E. Kuzik, and V. P. Yakushev.* **1985, No. 4, 919 [168].**

Time-of-Flight Molecular-Beam Spectrometer. *V. L. Varentsov, V. F. Ezhov, V. A. Knyaz'kov, V. L. Ryabov, A. Yu. Khazov, and V. V. Yashchuk.* **1986, No. 1, 173 [152].**

MI1201-Based Mass Spectrometer with Fast-Atom Sputtering. *G. D. Tantsyrev, G. M. Denisov, and A. S. Shalomeev.* **1986, No. 2, 441 [161].**

Automated Time-of-Flight Mass Spectrometer with Molecular-Beam Sampling. *L. V. Kuibida, O. P. Korobeinichev, M. G. Marasanov, S. V. Polozov, and V. B. Bystrenko.* **1987, No. 2, 418 [154].**

Radio-Frequency Mass Spectrometer based on APDM-1 with Mass Range of 1-1600 amu. *S. A. Shlykov and G. V. Girichev.* **1988, No. 2, 423 [141].**

Thomson Mass Spectrograph with Microchannel Detector. *Z. T. Beburiya, D. V. Iremashvili, G. V. Kolesov, V. B. Lebedev, T. A. Osepashvili, S. V. Saulevich, and Yu. K. Udovichenko.* **1989, No. 3, 692 [177].**

Apparatus for Mass-Spectrometric Analysis Methods. *A. V. Kozhukhov and B. Z. Kanter.* **1989, No. 4, 918 [163].**

Mass Spectrometer of Vega-1 Unmanned Interplanetary Station. *Yu. A. Surkov, V. F. Ivanova, A. N. Pudov, E. P. Sheretov, B. I. Kolotilin, M. P. Safonov, S. P. Ovchinnikov, N. V. Veselkin, V. F. Samodurov, V. S. Gurov, R. Thoma, G. Lespaniol, and A. Osier.* **1989, No. 4, 921 [166].**

High-Resolution Quadrupole Mass Spectrometer. *N. V. Konenkov, G. A. Mogil'chenko, S. S. Silakov, and G. I. Shagimuratov.* **1990, No. 2, 433 [179].**

Tandem Quadrupole Mass Filter. *N. V. Konenkov and S. S. Silakov.* **1990, No. 3, 653 [157].**

12.4. Modernization of mass spectrometers, attachments, modes

High-Speed Vacuum Lock for a Mass Spectrometer. *A. A. Sysoev, V. N. Filatov, G. A. Samsonov, and Yu. T. Kalinin.* **1978, No. 3, 741 [176].**

Orbitron Pump for Mass Spectrometers. *G. A. Samsonov, A. A. Sysoev, V. I. Kutsuruba, Yu. T. Kalinin, and V. N. Filatov.* **1979, No. 1, 174 [165].**

Operation of the MI9302 Mass Spectrometer in the Static Mode. *G. S. Anufriev, G. I. Afonina, B. A. Mamyrin, V. T. Nenarokomova, and A. E. Rafal'son.* **1979, No. 4, 1108 [211].**

Enhancement of the Sensitivity of an Ion Analyzer Based on an MI-1305 Mass Spectrometer. *B. D. Tserpitskii and V. F. Popov.* **1979, No. 5, 1386 [182].**

Use of Ion–Current Modulation in Analytical Mass Spectrometry. *G. V. Karachevtsev and A. Z. Marutkin.* **1979, No. 6, 1608 [119].**

Use of Microchannel Plates to Detect Ions. *N. V. Nikonenkov and A. N. Kudryavtsev.* **1980, No. 1, 198 [191].**

Mass Spectrometer with a Pulsed Position-Sensitive Ion Detector Based on Microchannel Plates. *V. I. Dukhanov, A. G. Zelenkov, A. A. Kurashov, I. B. Mazurov, Yu. F. Rodionov, and I. N. Serikov.* **1980, No. 3, 726 [170].**

One-Stage Membrane Inlet System for a Mass Spectrometer. *M. A. Berezhkovskii, M. I. Korolinskii, L. N. Ozerov, M. A. Pushkina, and M. E. Slutskii.* **1980, No. 4, 979 [164].**

Characteristics of a Microchannel Plate Unit in Recording Heavy Particles. *M. A. Gruntman and A. P. Kalinin.* **1980, No. 4, 991 [175].**

Recording Ion Currents in the MKh1304 Mass Spectrometer with VÉU-6 Channel Electron Multiplier. *A. I. Kuz'michev, I. L. Agafonov, and S. I. Kuz'michev.* **1980, No. 5, 1236 [167].**

Calculation on Line Mass Spectra Obtained by Modulation. *G. V. Karachevtsev, A. Z. Marutkin, and V. V. Savkin.* **1981, No. 2, 471 [173].**

The Scope for Using Standard Alloys for Mass-Spectrometer Analyzer Chambers. *G. S. Anufriev, B. S. Boltenkov, B. A. Mamyrin, L. V. Usacheva, and I. N. Kapitonov.* **1982, No. 1, 181 [160].**

Collector in an Ion Receiver for Precise Isotope Measurements. *E. F. Doil'nitsyn, I. Zyuzin, and A. P. Pertseva.* **1982, No. 2, 446 [153].**

Operational Features Resulting in Mass Spectrometers from NPM-0.1 Vapor-Jet Vacuum Pumps. *V. I. Ermolov, Yu. S. Kusner, and K. M. Moskalenko.* **1982, No. 4, 992 [192].**

Photopyrolytic Cells for Mass-Spectrometric Investigations. *A. Toirov and Z. A. Kabilov.* **1982, No. 5, 1224 [155].**

Dynamic Range Extension in Differential Ion Counting in Mass Spectrometry. *S. G. Samotsvetov, U. I. Mamyrov, and P. I. Chalov.* **1983, No. 3, 621 [119].**

Upgrading the MI-1201 Mass Spectrometer for Analyzing Trace Amounts of Material. *V. B. Nebogatikov, E. V. Platygina, A. A. Solonkin, V. F. Teplykh, and A. A. Shcherbakov.* **1983, No. 5, 1191 [172].**

Accumulation Cell for Mass-Spectrometric Analysis of Volatile Substances. *V. I. Faerman, L. M. Bessmertnaya, I. L. Agafonov, and A. E. Kapul'skii.* **1983, No. 5, 1230 [204].**

A Chemical-Ionization Attachment for the MKh1310 and MKh1320 Mass Spectrometers. *L. I. Dyubina, E. M.*

Kleshkov, R. N. Smirnova, and A. I. Kholodov. **1984, No. 2, 435 [168].**

Extending the Analytical Facilities of Standard Magnetic Mass Spectrometers. *A. V. Gubin and G. A. Samsonov.* **1984, No. 4, 950 [145].**

Upgrading the Ion Source in the MS-1301 Mass Spectrometer. *A. G. Boganov, I. I. Cheremisin, and V. L. Stolyarova.* **1984, No. 4, 952 [147].**

Attachment to Mass Spectrometer for Studying Gas-Phase Deposition of Semiconductor Compounds. *V. I. Belousov, G. I. Zhuravlev, N. I. Popenko, A. F. Novozhilov, I. V. Matveev, and V. V. Murav'ev.* **1984, No. 5, 1213 [153].**

Increasing the Isotopic Sensitivity of a Magnetic-Resonance Mass Spectrometer. *Yu. A. Akulov, B. A. Mamyrin, L. V. Khabarin, and V. S. Yudenich.* **1985, No. 2, 451 [173].**

Measurement of Total Negative-Ion Current with MI1201 Mass Spectrometer. *V. A. Mazunov, M. V. Muftakhov, and V. I. Khvostenko.* **1985, No. 4, 922 [170].**

Acicular Emitter Thermocouple for Mass Spectrometry. *S. P. Gnatyuk, N. N. Grishin, and V. B. Labintsev.* **1985, No. 6, 1463 [201].**

Reduction of Ion Discrimination in the MI-1201 Mass Spectrometer. *A. S. Kuzema and M. R. Mirianashvili.* **1986, No. 3, 681 [161].**

Pulsed Laser Charge-Transfer Device for Mass Spectrometer. *D. D. Bogdanov, O. A. Orlova, A. M. Rodin, S. I. Sidorchuk, V. A. Timakov, and G. M. Ter-Akop'yan.* **1987, No. 1, 206 [188].**

Registration of Currents of Positive and Negative Ions in Quadrupole Mass Spectrometer with One Measuring Channel. *R. N. Gall', V. V. Gor'kovoi, V. A. Elokhin, A. F. Kuz'min, and S. V. Protopopov.* **1987, No. 5, 1165 [135].**

Container for Insertion Into Mass Spectrometer of Solid Materials that are Unstable in Air. *V. I. Faerman and I. L. Agafonov.* **1988, No. 1, 243 [211].**

Modification of Stock Mass Spectrometer for Recording of Electron Resonance Capture. *A. D. Polukarov, A. M. Goremykin, Yu. N. El'kin, V. G. Voinov, and B. K. Vasil'ev.* **1988, No. 2, 424 [142].**

Increasing the Speed of the MKh-7303 Mass Spectrometer. *I. I. Popovich, I. P. Sharkan', I. M. Migolinets, and S. V. Mikulaninets.* **1989, No. 3, 696 [180].**

System for Direct Input of Solid Specimens into MI-1201 Mass Spectrometer. *V. L. Dzhaliashvili, G. V. Vakhaniya, N. K. Melitauri, K. G. Ordzhonikidze, and L. P. Parulava.* **1989, No. 3, 698 [182].**

Collector Unit for Quadrupole Mass Spectrometer. *S. S. Volkov, N. V. Konenkov, G. A. Mogil'chenko, A. B. Tolstoguzov, and G. I. Shagimuratov.* **1989, No. 6, 1391 [140].**

Ion Detector Based on Microchannel Plates for High-Sensitivity Mass Spectrometer. *A. M. Rodin, S. I. Sidorchuk, and V. A. Timakov.* **1990, No. 2, 317 [80].**

Modification of MKh-1320 Mass Spectrometer with PMKh-02 Chemical-Ionization Attachment for Study of Processes with Charged-Particle Participation. *A. P. Babaev, I. A. Kaltashev, G. V. Karachevtsev, and A. Z. Marutkin.* **1990, No. 4, 940 [200].**

Low-Background Ion Detector–Counter for Mass Spectrometer. *D. D. Bogdanov, A. M. Rodin, S. I. Sidorchuk, and V. A. Timakov.* **1991, No. 3, 602 [117].**

12.5. Ion sources for mass spectrometers

Multichannel Ion Source. *V. A. Ilyushkin, D. A. Noskov, A. S. Shangin, and Yu. A. Shibaev.* **1977, No. 1, 228 [199].**

High-Yield Laser Ion Source with Plasma Focusing for Mass-Spectrometric Analysis of Solids. *Yu. A. Bykovskii, L. M. Babenkov, T. A. Basova, V. I. Belousov, V. M. Gladskoi, V. V. Gorshkov, V. G. Degtyarev, I. D. Laptev, and V. N. Nevolin.* **1977, No. 2, 508 [163].**

Voltage on Electrodes of Spark-Ion Source of a Mass Spectrometer. *V. A. Gerasimov and A. I. Saprykin.* **1977, No. 3, 809 [175].**

Multichannel Ion-Beam Device. *V. A. Ilyushkin, D. A. Noskov, A. S. Shangin, and Yu. A. Shibaev.* **1977, No. 3, 811 [177].**

Investigation of Duoplasmatron as a Source of Argon Ions in an Ion Microanalyzer. *V. F. Popov, B. D. Tserpitskii, and A. B. Raitsyn.* **1977, No. 3, 814 [179].**

Laser Ion Source for Mass Spectrometer MI-1309. *A. I. Busygin and B. Sh. Ul'masbaev.* **1978, No. 1, 171 [164].**

Ion Source for Quadrupole Mass Spectrometer. *Yu. T. Kalinin, A. A. Sysoev, V. N. Vilatov, and R. S. Khafizov.* **1979, No. 1, 177 [167].**

Influence of Laser Irradiation of a Mass Spectrometer Ion-Field Source Emitter on the Magnitude of the Ion Current. *I. L. Agafonov and V. I. Faerman.* **1979, No. 4, 1116 [218].**

Device for Cooling the Ion Source of the MI-1305 Mass Spectrometer to Nitrogen Temperatures. *I. A. Rat'kovskii, A. G. Nalivaiko, and S. B. Tsirganovich.* **1979, No. 4, 1176 [269].**

Ion Source of a Time-of-Flight Mass Spectrometer for Physicochemical Investigations of a Solid Surface. *L. N. Grigorov and V. Ya. Munblit.* **1979, No. 5, 1367 [165].**

Ion Source to an MI-1305 Mass Spectrometer for Measurements by the Field-Desorption Method. *V. A. Pokrovskii and A. M. Glukhoi.* **1980, No. 1, 193 [187].**

Use of a Three-Electrode Auto-Ion Gun in Field Mass Spectrometry. *V. B. Labintsev and N. N. Grishin.* **1980, No. 4, 984 [168].**

Formation of Dielectric Films on the Electrodes of the Ion Source of a Mass Spectrometer. *V. N. Filatov, A. A. Sysoev, and O. V. Morozov.* **1981, No. 1, 188 [179].**

High-Temperature Ion Source for the MI-1201 Mass Spectrometer. *A. F. Novozhilov, V. I. Belousov, V. V. Murav'ev, and I. V. Matveev.* **1981, No. 3, 752 [175].**

Ion Source in the MKh-1303 Mass Spectrometer for High-Temperature Experiments. *A. A. Petrov, E. K. Kazenas, V. K. Tagirov, M. A. Bol'shikh, A. N. Chadin, and P. A. Nesterenko.* **1982, No. 2, 448 [154].**

Effect of Dielectric Films on the Characteristics of a Mass-Spectrometer Ion Source. *V. N. Filatov and A. A. Sysoev.* **1982, No. 3, 697 [165].**

Ion Source of ROMS-2 Mass Spectrometer with Fragmentless Ionization. *N. N. Ledneva, Kh. I. Pruger, and A. A. Rivlin.* **1982, No. 4, 1025 [222].**

An Ion Source with Surface Ionization for Six Inserted Samples to Be Used in the MI-1201 Mass Spectrometer. *L. L. Chilipenko.* **1982, No. 5, 1220 [152].**

Ion Sources for High-Temperature Measurements Using the MI-1201 Mass Spectrometer. *N. M. Karasev, I. I. Minaeva, and M. V. Varkov.* **1983, No. 1, 164 [137].**

Ion-Source Attachment to the MI-1201 Mass Spectrometer for Analyzing Secondary Ions. *M. S. Abdugabbarov, M. Yu. Adilov, and N. Yu. Turaev.* **1983, No. 5, 1188 [170].**

Low-Temperature Attachment to the Field Ionization Source in the MI-1201 Mass Spectrometer. *D. A. Gaivoronskii and L. F. Sukhodub.* **1983, No. 5, 1192 [173].**

Ion Sources for a Quadrupole Mass Spectrometer for Recording Molecular Beams. *E. N. Evianov, B. V. Zubkov, Yu. V. Lebedev, and S. N. Podkolzin.* **1983, No. 6, 1407 [140].**

Ion Source for Desorption and Ionization in Strong Electrostatic Field for MKh1320 High-Resolution Mass Spectrometer. *V. G. Golovatyi, V. P. Shabel'nikov, and I. V. Shpakovskii.* **1985, No. 6, 1394 [142].**

Modification of Ion Source of Mass Spectrometer to Increase Accuracy and Speed. *V. V. Kashcheev, A. A. Sysoev, G. I. Kir'yanov, and K. A. Akopov.* **1986, No. 5, 1155 [155].**

Fast-Atom Ion Source for MKh-1310 Mass Spectrometer. *V. A. Pokrovskii, V. I. Borisevich, and A. M. Glukhoi.* **1987, No. 1, 170 [156].**

Mass-Spectrometer Source for Making Ions of Thermally Labile Bioorganic Substances. *K. V. Malakhov, A. N. Pyatakin, V. M. Tikhonov, and M. Ya. Turkina.* **1987, No. 3, 662 [148].**

Ion Source for MKh-7304 Mass Spectrometer. *V. N. Fonov, I. A. Korolev, B. A. Kalinin, and V. A. Uzikov.* **1987, No. 4, 983 [204].**

Modernized Ion Source for ROMS-2 Mass Spectrometer for Analysis of Metals in Water. *R. Ya. Bron, K. K. Man'kovskii, Kh. I. Pruger, A. A. Rivlin, and S. G. Shapiro.* **1988, No. 6, 1522 [134].**

Electron Monochromator for Negative-Ion Source of MI-1201 Mass Spectrometer. *M. V. Muftakhov, Yu. V. Vasil'ev, E. R. Nazirov, and V. A. Mazunov.* **1989, No. 2, 443 [166].**

Ultrahigh-Vacuum Laser Ion Source for Double-Focusing Mass Spectrometer. *V. I. Belousov, S. V. Chernyakov, and N. I. Smenov.* **1989, No. 5, 1197 [199].**

Pulsed Ion Gun for Laser Atomic-Ionization Spectrometer. *M. V. Kuz'mina, D. E. Milovzorov, Yu. V. Orlov, D. V. Strel'nikov, and V. A. Shishlakov.* **1991, No. 3, 605 [120].**

Ion Source and High-Temperature Molecular-Beam Source for MI-1201V Mass Spectrometer. *V. M. Grankin and P. P. Semyannikov.* **1991, No. 4, 875 [129].**

12.6. Electronics of mass spectrometers

Apparatus for Digital Recording of Mass Spectra. *V. P. Ivanov, A. V. Novichkov, A. A. Sysoev, N. I. Tananykin, and G. A. Shershnev.* **1978, No. 4, 1063 [201].**

Mass Spectrometer with an Electrostatic Filter "in Line" with an Accelerator. *B. N. Belyaev, L. N. Gall', R. N. Gall', V. D. Domkin, Yu. G. Korobulin, L. M. Krizhanskii, and V. D. Sachenko.* **1979, No. 4, 934 [51].**

Device for Automation of Measurements in Monopolar Mass Spectrometer. *A. L. Yakimakha, L. F. Berzin, V. K. Lyashko, and B. G. Golubovskii.* **1979, No. 4, 1111 [213].**

Paraphase Exponential-Step Sweep Voltage Generator for Energy Analysis of Charged Particles. *A. V. Makienko and V. N. Rudkovskii.* **1979, No. 5, 1353 [152].**

Stabilized rf Generator of Quadrupole Mass Spectrometer. *V. N. V'yukhin and E. A. Kovalev.* **1980, No. 5, 1184 [122].**

Selector and Control Circuit of Multichannel Recording System for Kinetic Mass Spectrometry. *B. G. Mishchenko, A. A. Sysoev, S. K. Timokhov, R. S. Khafizov, and S. A. Shobotenko.* **1980, No. 5, 1238 [169].**

Ion Count Rate Meter. *Yu. N. Antonov, E. N. Moos, and G. D. Parshin.* **1980, No. 5, 1241 [172].**

Interfacing a Transit-Time Mass Spectrometer to a Minicomputer. *F. Ya. Gimel'shein, V. A. Ermolenko, and A. N. Mikheev.* **1982, No. 5, 1115 [69].**

A Stabilized Controlled Generator for a Quadrupole Mass Spectrometer. *S. A. Shobotenko and A. A. Evstifeev.* **1982, No. 5, 1160 [107].**

Instrument for Gathering and Primary Processing of Data of Mass Spectrometry. *S. A. Shobotenko.* **1982, No. 5, 1218 [150].**

Ion-Beam Scanning Circuit for the MI-1305 Mass Spectrometer. *N. N. Korobkov, O. P. Ninburg, and P. G. Umantsev.* **1982, No. 6, 1462 [133].**

Variable-Frequency Oscillator for Hyperboloidic Mass Spectrometers. *S. I. Smirnov and V. A. Zenkin.* **1983, No. 2, 364 [115].**

Tuned Wide-Band High-Frequency Oscillator. *M. E. Slutskii and M. A. Pushkina.* **1983, No. 2, 367 [117].**

Reversible Mass-Spectrum Sweep in the MI 1201 Mass Spectrometer. *S. A. Vnukov.* **1983, No. 2, 419 [164].**

Ion-Current Amplifier for a Mass Spectrometer. *B. B. Leporskii, A. F. Bazhin, A. A. Luk'yanets, and E. S. Cherepenina.* **1983, No. 3, 652 [147].**

Automation of MI-1320 Mass Spectrometer Ion Current Measurements. *A. A. Gol'din, Yu. A. Isakov, A. Z. Liberman, and V. V. Manoilov.* **1983, No. 4, 833 [84].**

Universal Digital-Scanning Generator for Mass Spectrometers. *S. A. Shobotenko, and A. A. Evstifeev.* **1983, No. 4, 941 [180].**

Automatic System for Time-of-Flight Mass Spectrometric Measurements. *M. V. Aprelev, A. A. Glebovskii, I. F. Moiseenko, and A. A. Lisachenko.* **1984, No. 1, 92 [89].**

Instrument for Multichannel Recording of Mass Spectra. *G. M. Gur'yanov, N. N. Korobkov, and O. P. Ninburg.* **1984, No. 3, 768 [219].**

A Mass-Spectrum Recording Device Based on a Peak-Holding Regulator. *A. D. Yarmak.* **1985, No. 2, 453 [175].**

Automatic Digital Recording System for Mass-Spectrum Extremes. *A. V. Grechishnikov.* **1986, No. 1, 161 [141].**

Automation of Scanning and Recording of Thermal-Experiment Data in MI-1021B System. *V. V. Yagzhev.* **1986, No. 3, 684 [164].**

Experiment-Control System for Polimass Pulse Mass Spectrometer Installation. *S. L. Kozlov, E. A. Shafranovskii, and N. F. Shchukin.* **1987, No. 5, 1168 [138].**

Mass-Spectrum Scanning in Long-Term Measurements by Synchronous Ion Count Method with MI-1201 Mass Spectrometer. *S. G. Samotsvetov and P. I. Chalov.* **1987, No. 5, 1170 [140].**

An SM-4 Computer and CAMAC Equipment in Automating a ROMS-2A Mass Spectrometer. *R. Sh. Bulgakov, R. A. Gafurov, D. N. Safin, and G. V. Avdonin.* **1987, No. 6, 1333 [52].**

Device for Automatic Range Selection and Switching for Measurement of Mass-Spectrum Intensity. *A. V. Belozerov, V. V. Naumov, and V. I. Sheleshkevich.* **1987, No. 6, 1443 [149].**

Spiral-Scanning Device. *R. D. Usmanov.* **1988, No. 4, 993 [142].**

Microprocessor-Controlled Power Supply for Ion Source. *A. S. Azarov, V. F. Borzhkovskii, V. G. Vlasov, and N. G. Stervoedov.* **1989, No. 3, 641 [134].**

Rf-Voltage Generator for Three-Dimensional-Trap Mass Spectrometer. *E. P. Sheretov, N. V. Veselkin, B. I. Kolotilin, and S. P. Ovchinnikov.* **1989, No. 4, 926 [171].**

Improvement of Recording and Processing Channel of MI-1320 Mass Spectrometer. *A. I. Kostoyanov and D. V. Kapustin.* **1990, No. 6, 1389 [147].**

13. OPTICS

13.1. Light sources

Nontraditional Method of Laser Pumping (Survey). *Yu. G. Basov.* **1988, No. 6, 1365 [5].**

Radioluminescent Emitters (Review). *E. N. Tverdokhlebov, V. N. Chechevichkin, and L. V. Karklit.* **1990, No. 5, 989 [23].**

Secondary Radiation Standard in Ultraviolet Region of Spectrum. *E. D. Mishchenko, V. A. Makarov, L. P. Shishatskaya, and T. G. Ivanova.* **1977, No. 3, 886 [238].**

Radiation Source Based on an Optical Discharge in Xenon. *G. L. Kabanov, V. A. Nikolaev, A. I. Pavlov, and I. N. Slivkov.* **1977, No. 4, 1163 [222].**

Relationship between Intensity of Hg 253.7-nm Line and Temperature of Lamp-Type DRT-220. *M. Ya. Barkan, V. N. Karalis, and V. P. Kachalov.* **1977, No. 5, 1474 [206].**

Continuously Acting Luminous Composition for Photoelectric Measurements. *O. P. Pyl'skaya.* **1977, No. 5, 1476 [207].**

Use of Halogen Tungsten Lamp as a Radiation Source for the Investigation of the Spectral Characteristics of Weakly Reflecting Materials. *I. Averkov and A. A. Emel'yanov.* **1978, No. 5, 1371 [194].**

Water Cooling of the DKsSh-1000 Lamp. *I. A. Ar'ev.* **1979, No. 3, 839 [209].**

Circuit for Exciting a Combined Discharge in Gaseous Media. *Yu. I. Bychkov, V. V. Osipov, and V. A. Tel'nov.* **1981, No. 1, 173 [165].**

Pulsed Power Source for Gas-Discharge Spectral Tubes. *K. P. Kureichik and S. A. Zaikin.* **1981, No. 6, 1561 [209].**

Device for Thermal Stabilization of the Luminous Intensity of the DRT-220 Quartz-Mercury Lamp. *N. A. Guletskaya, N. N. Guletskii, and E. P. Korennoi.* **1983, No. 1, 209 [171].**

Pulse Generator for Powering Semiconductor Light Emitters. *Z. I. Zienko, G. T. Pak, and V. Yu. Smerdov.* **1984, No. 2, 359 [100].**

Selective Gas-Discharge Source for an Optical-Absorption Gas Analyzer. *I. V. Dubashinskaya, L. E. Khvorostovskaya, and S. N. Khvorostovskii.* **1984, No. 3, 715 [174].**

Flux-Stabilized Spectral Source of Wavelengths from 0.25 to 0.5 μm. *V. B. Anzin and V. I. Tarasov.* **1984, No. 4, 955 [149].**

Source of High-Intensity Monochromatic Radiation for the 200-800-nm Region. *V. A. Vasil'ev, V. N. Kuznetsov, and A. A. Lisachenko.* **1984, No. 4, 957 [151].**

Stabilized Power Supply for a DNK-90 Ultraviolet Lamp. *S. V. Pribega, V. V. Stepanyuk, and Yu. A. Kolomiets.* **1984, No. 6, 1447 [135].**

A Power Supply for Spectral Lamps. *K. P. Kureichik, V. L. Makarov, and M. M. Mavlyutov.* **1985, No. 2, 468 [188].**

Brightness Stability of Capillary Flash Lamps. *G. A. Volkova, V. G. Lyskov, and I. A. Khrapunovich.* **1987, No. 1, 226 [206].**

Single-Quantum Visible-Region Radiator. *E. G. Sil'kis.* **1987, No. 6, 1459 [161].**

SOK-1 Laser Optical System with Television Attachment. *V. P. Ryabukho and L. A. Surmenko.* **1987, No. 6, 1494 [190].**

Troll'-2 Special-Purpose Synchrotron Radiation Source. *S. I. Anevskii, A. E. Vernyi, V. S. Panasyuk, and V. B. Khromchenko.* **1988, No. 2, 407 [129].**

Life of Hollow-Cathode Tubes Operating in Pulse Mode. *K. P. Kureichik and M. M. Mavlyutov.* **1988, No. 5, 1327 [196].**

Regulated Power Supply for VMF-25 Low-Voltage Hydrogen-Discharge Lamp. *V. I. Kharlamov and Yu. A. Kolomiets.* **1988, No. 5, 1347 [209].**

Extraction of Short-Wave Radiation from Gas Plasma at Atmospheric Pressure. *A. A. Kuznetsov, S. S. Sulakshin, and A. M. Titov.* **1989, No. 2, 487 [204].**

13.1.1. Light-pulse sources

Tubular Lamps with Shortened Emission Pulses (Review). *Yu. G. Basov.* **1983, No. 3, 497 [7].**

Flash Lamp Pumping Systems for Dye Lasers (Review). *Yu. G. Basov.* **1986, No. 6, 1239 [5].**

Electrodynamic Generation of High-Power Microsecond Light Pulses. *G. I. Belogolovtsev.* **1977, No. 1, 235 [205].**

Cavity Type Pulse Light Source for Photolysis. *G. I. Belogolovtsev and N. N. Lyannoi.* **1977, No. 4, 1158 [217].**

Pulsed Controlled Source of Vacuum Ultraviolet with Line Spectrum. *V. N. Rubtsov, A. I. Galuza, A. P. Kirichenko, and V. A. Konstantinov.* **1977, No. 4, 1161 [220].**

Pulsed Source of Ultraviolet Radiation. *L. G. Karpov, S. I. Lozovoi, and Yu. I. Sergeev.* **1978, No. 1, 195 [184].**

Detachable Pumping Lamps for an Organic-Dye Laser. *M. F. Lagutin, N. P. Mustetsov, and A. A. Zarudnyi.* **1978, No. 2, 491 [212].**

Pulsed Light Source of High Brightness Based on a DKSSh-120 Lamp with an Adjustable Slope of the Flat Top of the Pulse. *V. S. Smirnov and V. P. Novikov.* **1978, No. 3, 762 [194].**

Spectral Characteristics of DKSSh Ultrahigh-Pressure Xenon Lamps Operating in a Pulsed Regime. *E. I. Kotov, A. V. Nazarenko, and V. V. Semin.* **1979, No. 1, 264 [247].**

Pulsed Gas-Discharge Lamp with Traps for Erosional Electrode Particles. *Yu. G. Basov, S. A. Boldyrev, S. F. Dzyubanov, and V. V. Fomin.* **1979, No. 3, 800 [174].**

Pulsed Lamp for the Optical Orientation of Metastable Helium Atoms. *V. D. Mel'nikov and B. N. Sevast'yanov.* **1979, No. 3, 802 [175].**

Xenon and Argon Flash Lamps for Vacuum UV Radiation. *Yu. S. Basov, S. A. Boldyrev, L. I. Gavrilova, A. S. Doinikov, and G. E. Tsvilyuk.* **1979, No. 5, 1389 [184].**

Triggered Light-Pulse Generator. *V. I. Petrovskii.* **1979, No. 5, 1457 [243].**

Pulsed Light Source Based on the Z-Pinch for Microsecond Photolysis. *G. I. Belogolovtsev.* **1980, No. 2, 466 [161].**

Coherent Pulse Source at a Wavelength of 118 nm. *V. I. Berkov, V. V. Korobkin, Yu. V. Korobkin, A. S. Markin, A. V. Prokhindeev, and V. B. Studenov.* **1980, No. 4, 1019 [200].**

Extended Preionizing UV Source for Pulsed Gas Lasers. *A. K. Zhigalkin and Yu. L. Sidorov.* **1980, No. 6, 1473 [146].**

A Semiconductor Simulator of a Solid-State Laser Radiating a Pulse Packet. *M. N. Zargar'yants, P. V. Dernovskii, and A. I. Ignatov.* **1982, No. 1, 210 [185].**

Pulsed Source of an Optical Comparison Spectrum of High Brightness. *V. P. Novikov and V. S. Smirnov.* **1982, No. 4, 1006 [204].**

A Pulse Source of Continuous Spectrum. *O. M. Kerimov, S. I. Kucheryavyi, and A. I. Milanich.* **1982, No. 5, 1233 [163].**

Shaping a Rectangular Light Pulse for High-Speed Photographic Recording Equipment. *N. E. Svirchev, V. A. Murin, Yu. B. Polyakov, and V. I. Lavrov.* **1983, No. 2, 483 [220].**

Pulsed Operation of DKSSh-75 and DKSSh-150 Xenon Lamps. *K. P. Kureichik and N. V. Kozlovskii.* **1983, No. 6, 1412 [146].**

Effect of the Lamp Supply Mode on the Characteristics of a Dye Laser. *M. F. Lagutin, N. P. Mustetsov, and A. A. Zarudnyi.* **1984, No. 2, 447 [178].**

Generator of Intense Millisecond Light Pulses. *S. V. Sidorov, V. I. Chernikov, and A. S. Darevskii.* **1986, No. 1, 196 [171].**

Increased-Power Prebreakdown Silicon Carbide Emitter. *L. A. Kosyachenko and V. M. Sklyarchuk.* **1986, No. 2, 455 [174].**

Pulse-Frequency Modulation of DKsSh DC Arc Lamps. *V. A. Kalachikov.* **1986, No. 4, 912 [144].**

SGS56 150-Channel Light-Pulse Generator for Recording of Electrical Signals. *R. L. Akopyan, V. M. Kuzin, and V. R. Skegin.* **1986, No. 5, 1160 [160].**

Square-Pulse Shaper for Light-Emitting Diode. *A. T. Dideikin.* **1987, No. 2, 480 [205].**

Pulsed Source of Ultraviolet Radiation based on Capillary Creepage. *P. N. Dashuk, B. P. Kuz'min, S. V. Lukashenko, and A. S. Rabotyaga.* **1988, No. 3, 733 [180].**

Tubular Flash Lamp of Monocrystalline Magnesium Fluoride. *A. M. Pukhov and N. N. Naumova.* **1989, No. 4, 942 [185].**

Discharging Device with Keep-Alive Power Supply for Gas-Discharge Flash Lamp. *G. G. Antonyan, A. R. Simonyan, and V. S. Arakelyan.* **1990, No. 1, 121 [124].**

Module for Formation of Square Diode-Laser-Array Pulses. *V. I. Gavrilovskii.* **1990, No. 3, 724 [217].**

Effect of Design Parameters on the Radiation of Hollow-Cathode Flash Lamps. *K. P. Kureichik, V. V. Shashenok, L. G. Degtyarova, and N. V. Kozlovskii.* **1990, No. 5, 1184 [194].**

Source of High-Power Square Light Pulses. *M. Yu. Sharonov, V. V. Mnev, and B. K. Sevast'yanov.* **1991, No. 1, 218 [208].**

13.1.2. Short-light-pulse sources

Characteristics of a Gas-Discharge Source of Nanosecond Light Pulses. *L. P. Babich, T. V. Loiko, and L. V. Tarasova.* **1977, No. 1, 233 [203].**

Pulsed Imitators of Laser Radiation. *N. A. Konstantinov, O. A. Mednikov, T. A. Fratini, and L. A. Khomutova.* **1978, No. 5, 1390 [211].**

Subnanosecond-Light-Pulse Generator. *E. V. Gusev and V. M. Frolov.* **1982, No. 2, 494 [193].**

Fast-Acting Optical Radiation Source. *A. S. Prokhorenko and N. N. Shavel'.* **1982, No. 4, 1004 [202].**

Laser Source of Light Pulses for Calibrating Multichannel Systems with Photographic Recording. *A. S. Aleksanyan, N. A. Nalbandyan, A. Zh. Petrosyan, and R. N. Pikhtelev.* **1983, No. 4, 809 [64].**

Nanosecond Light-Pulse Generator. *M. V. Novakovskii and V. P. Stas'ev.* **1985, No. 6, 1404 [150].**

Nanosecond Light Source for Calibration of Multichannel Spectrometers. *V. M. Avetisyan, V. G. Atanesyan, A. A. Nazaryan, and A. A. Frangyan.* **1987, No. 4, 944 [170].**

Subnanosecond Light-Pulse Generator for Study of Photomultiplier Time Characteristics. *M. I. Demchuk and S. M. Dmitriev.* **1988, No. 1, 249 [215].**

13.1.3. Gas lasers

Compact HCN Laser. *D. N. Yundev.* **1977, No. 2, 530 [182].**

Stabilized Two-Frequency He + Ne Laser for 0.63-μm Wavelength. *A. N. Bondarenko, V. K. Vologdin, and Yu. M. Krinitsyn.* **1978, No. 4, 1090 [225].**

N_2 Laser with High Average Power and Longitudinal Discharge. *Yu. I. Bychkov, M. N. Kostin, V. F. Losev, and V. F. Tarasenko.* **1978, No. 4, 1093 [228].**

Metal–Ceramic Discharge Chamber for a Nitrogen Laser with Transverse Excitation. *V. F. Papakin and A. Yu. Sonin.* **1979, No. 1, 210 [197].**

A Scheme for the Automatic Fine Frequency Tuning of the Radiation from a Helium–Neon Laser along the Lamb Depression. *V. A. Khanov.* **1979, No. 3, 811 [183].**

Side Cathode for Powerful Argon Laser. *A. G. Mal'tsev.* **1979, No. 4, 1134 [233].**

Increasing the Operational Reliability of the Automation Unit for the LG-32 Laser. *V. G. Tarasyuk and V. A. Khanov.* **1979, No. 4, 1136 [235].**

Cuvette for a Cu Laser with Excitation by a Transverse Discharge. *O. I. Buzhinskii, S. I. Krysanov, and A. A. Slivitskii.* **1979, No. 4, 1181 [274].**

Excitation System for Electric Discharge Excimer Lasers. *M. N. Kostin, V. F. Tarasenko, and A. I. Fedorov.* **1980, No. 1, 226 [218].**

Reconditioning the Discharge Tubes of He–Ne Lasers. *A. S. Ershov, A. Yu. Kazarin, and V. G. Yakunin.* **1980, No. 1, 273 [262].**

Photodissociation Laser with Active Medium Circulation. *V. E. Sabinin, E. A. Shibalov, E. F. Pevnev, and E. K. Krasil'nikova.* **1980, No. 4, 1017 [199].**

Highly Stable Long-Lasting HCN Laser. *N. I. Malykh, A. G. Nagornyi, and E. S. Yampol'skii.* **1980, No. 5, 1271 [200].**

Extended Preionizing UV Source for Pulsed Gas Lasers. *A. K. Zhigalkin and Yu. L. Sidorov.* **1980, No. 6, 1473 [146].**

Stabilized HCN Laser with hf Pumping. *A. N. Topkov, V. A. Svich, and N. G. Pokormyakho.* **1980, No. 6, 1479 [151].**

Subnanosecond Optical Pulse Generator Using Argon Ion Laser. *K. N. Bakinovskii, G. N. Baranov, and G. V. Sharonov.* **1981, No. 2, 484 [185].**

Compact High Peak Power Nitrogen Laser. *V. S. Arakelyan, A. A. Avetisyan, V. G. Atabekyan, V. M. Mkhitaryan, and V. V. Pakhlavuni.* **1981, No. 2, 486 [187].**

The Absorption Cell of a He + Ne/$^{127}I_2$ Laser. *Yu. D. Kolomnikov and B. S. Mogil'nitskii.* **1981, No. 5, 1320 [205].**

A Stable Water-Vapor Discharge Laser Generating Orthogonal Polarizations. *V. V. Zav'yalov and G. D. Bogomolov.* **1982, No. 3, 708 [174].**

Stabilization of the Active Synchronization Mode in an Argon Laser. *I. I. Vasil'ev, V. V. Kuz'min, M. G. Livshits, and V. A. Sasunkevich.* **1982, No. 3, 714 [179].**

Mode-Locked Argon Laser with Intracavity Radiation Extraction. *K. N. Bakinovskii, E. S. Voropai, V. T. Koyava, A. M. Sarzhevskii, and G. V. Sharonov.* **1983, No. 3, 665 [159].**

Simple Discharge Laser Radiating in the Ultraviolet, Visible, and Infrared Ranges. *N. M. Gamzatov, A. V. Konvashchenko, A. N. Oraevskii, and N. F. Starodubtsev.* **1983, No. 3, 671 [164].**

Use of Focusing of the Light of a Gas Discharge Medium to Stabilize the Emission Power of a He-Ne Laser (λ = 6401 Å). *D. N. Gavrilov.* **1983, No. 5, 1209 [187].**

Hollow-Cathode Cell for a Pulsed Vapor Laser. *V. A. Kel'man and I. P. Zapesochnyi.* **1983, No. 5, 1211 [189].**

Segmented Metal Discharge Tubes for a Nitrogen Ultraviolet Laser with a Longitudinal Discharge. *V. G. Il'yushko, V. F. Kravchenko, and V. S. Mikhalevskii.* **1984, No. 1, 194 [178].**

Regeneration of the Discharge Tubes of LG-56 Helium–Neon Lasers. *A. F. Bylinkin and A. T. Vladul.* **1984, No. 1, 233 [211].**

Small Low-Noise He–Ne Laser with High-Frequency Pumping. *V. M. Geller, G. I. Grif, and V. A. Khrustalev.* **1984, No. 4, 986 [176].**

A Compact Sectional Gas Laser with Longitudinal Excitation. *A. E. Martirosyan and V. O. Papanyan.* **1985, No. 1, 184 [166].**

Wideband Power-Regulation System for Ionized-Argon Laser. *K. V. Kiryunikov and B. Ya. Yurshin.* **1986, No. 1, 167 [146].**

Reduction of Noise Level of LPM-11 Helium-Cadmium Laser. *V. A. Vas'kov, S. A. Gonchukov, V. V. Zubov, E. V. Kurbatov, E. D. Protsenko, and Z. K. Saburova.* **1986, No. 1, 199 [174].**

Optimized HCN Laser. *V. V. Kubarev.* **1986, No. 3, 697 [177].**

Compact Electron Accelerator for Excitation of Eximer Lasers. *Yu. I. Khapov.* **1986, No. 3, 707 [186].**

Power Supply for Active Element of He-Ne/$^{127}I_2$ Laser. *P. S. Krylov.* **1986, No. 3, 714 [191].**

Single-Mode Generation of LG-52-2 Laser at 3.39 μm. *A. S. Sakyan.* **1986, No. 4, 908 [141].**

Helium Purification by Forced Circulation Through Cooled Sorbers in Nuclear-Pumped Lasers. *A. P. Kopai-Gora, A. I. Mis'kevich, and B. S. Salamakha.* **1986, No. 5, 1174 [171].**

Grid Control for Electron Guns in Electroionization Lasers. *B. V. Artem'ev, V. A. Danilychev, V. A. Dolgikh, V. V. Kapustin, O. M. Kerimov, I. P. Pryashnikov, V. A. Saburov, and Yu. D. Stepanov.* **1986, No. 6, 1393 [139].**

Mode-Locked He-Ne Laser (λ = 1.15 μm) for Diagnosis of Fiber Light Guides. *T. V. Babkina, R. A. Bogoroditskaya, V. V. Grigor'yants, B. M. Gur'ev, M. I. Lobachev, A. P. Mironychev, E. M. Rabinovich, and V. V. Tuchin.* **1987, No. 2, 433 [166].**

Scheme for Stabilizing the Average Radiation Intensity of a He-Ne Laser. *A. N. Grigorenko, P. V. Domnin, S. A. Mishin, and E. G. Rudashevskii.* **1987, No. 3, 694 [175].**

Neon Laser Pumped by Electron Beam of Compact Accelerator. *V. S. Skakun, V. F. Tarasenko, A. V. Fedenev, E. A. Fomin, and V. G. Shpak.* **1987, No. 4, 949 [175].**

Tunable Laser Based on LG-126. *P. M. Gusak and S. S. Mikhailovskii.* **1987, No. 5, 1197 [162].**

Compact Lasers with Cathodoluminescent Pumping. *M. N. Urbazaev, G. D. Lyakh, V. M. Orlovskii, and V. V. Osipov.* **1988, No. 2, 447 [160].**

Compact Pulsed XeCl Laser. *V. M. Borisov, A. Yu. Vinokhodov, Yu. B. Kiryukhin, A. M. Kovalevich, D. N. Molchanov, A. N. Morozov, M. A. Sandomirov, Yu. Yu. Stepanov, and O. B. Khristoforov.* **1988, No. 4, 1013 [157].**

HgBr Electric-Discharge Laser with Ultraviolet Preionization. *B. V. Kiselev, A. D. Klementov, E. A. Petrukhin, and A. S. Podsosonnyi.* **1988, No. 4, 1016 [160].**

Increasing the Efficiency of a Nitrogen Laser. *Ban He Sok, V. I. Lyashenko, E. Sodomyn, T. Tudor, Chan An Vu, and Yu. A. Shcherbakov.* **1988, No. 5, 1275 [155].**

Helium-Neon Laser Stabilized by Saturated Absorption in Iodine ("Standart-5M"). *P. S. Krylov, A. V. Mironov, and V. E. Privalov.* **1989, No. 4, 956 [197].**

Single-Mode 1.15-μm Laser. *Yu. N. Zubkov, A. N. Smolyar, and B. V. Khramov.* **1989, No. 6, 1420 [166].**

DILAN Multiwave Gas-Discharge Laser. *M. I. Lomaev, A. N. Panchenko, and V. F. Tarasenko.* **1990, No. 1, 189 [179].**

Three-Wavelength He-Ne Laser with Amplitude and Frequency Modulation. *V. P. Lushev, O. A. Moskulets, A. A. Pavlenko, and E. V. Podlesnaya.* **1990, No. 2, 431 [178].**

Electron-Beam-Pumped Laser with Gaseous Active Media at Temperatures of 10-750°C. *D. Yu. Nagornyi, V. S. Skakun, V. F. Tarasenko, and A. V. Fedenev.* **1990, No. 3, 667 [169].**

Excimer Laser with Magnetic Excitation-Pulse Shaper. *V. M. Apatin, A. M. Zimichev, E. L. Mikhailov, and V. A. Pakutnev.* **1990, No. 4, 937 [197].**

Discharge-Pumped HgBr Laser with Ultraviolet Preionization. *T. A. Barinova, B. V. Kiselev, E. A. Petrukhin, and A. S. Podsosonnyi.* **1991, No. 2, 389 [145].**

Resonator for Lasers with Rectangular Discharge Gap. *V. S. Verkhovskii, S. V. Mel'chenko, and V. F. Tarasenko.* **1991, No. 2, 399 [153].**

Compact XeCl Electric-Discharge Laser with Narrow Spectrum and Low Beam Divergence. *Yu. N. Panchenko, V. F. Losev, and S. E. Kovalenko.* **1991, No. 3, 640 [150].**

Pump-Pulse Generator for High-Power Excimer Discharge Laser. *V. A. Vizir', Yu. B. Kiryukhin, V. I. Manylov, S. P. Nosenko, S. P. Sychev, V. V. Chervyakov, and N. G. Shubkin.* **1991, No. 4, 913 [160].**

Two-Frequency He–Ne Zeeman Laser. *A. V. Mironov, V. E. Privalov, and S. A. Sinitsa.* **1991, No. 5, 1154 [156].**

13.1.4. CO_2 lasers

Controlling Duration of CO_2 Laser Radiation. *V. M. Borisov, Yu. A. Satov, and V. V. Sudakov.* **1977, No. 1, 230 [201].**

Single-Stage CO_2 Laser for Producing Pulses of Radiation with Power of Tens of Gigawatts. *I. A. Berezhnoi, V. A. Boiko, V. A. Danilychev, V. D. Zvorykin, V. V. Ignat'ev, I. V. Kholin, and A. Yu. Chugunov.* **1977, No. 5, 1431 [172].**

Compact CO_2 Laser. *V. V. Osipov, P. A. Slobodyanyuk, and V. A. Tel'nov.* **1978, No. 1, 211 [198].**

Electroionization CO_2 Laser with Working Pressure 10 atm. *V. M. Orlovskii and V. V. Osipov.* **1978, No. 4, 1094 [229].**

Compact Single-Mode CO_2 Laser. *V. S. Burmasov.* **1978, No. 5, 1383 [205].**

CO_2 Laser High-Voltage Power Supply Based on a Pulsed Autotransformer. *V. V. Apollonov, A. I. Barchukov, S. I. Derzhavin, I. G. Kononov, K. N. Firsov, Yu. A. Shakir, V. A. Yamshchikov, A. V. Krivonosenko, S. S. Pel'tsman, and B. V. Semkin.* **1978, No. 6, 1602 [131].**

Compact Electric-Discharge CO_2 Laser with Emission Energy 30 J. *Yu. V. Afonin, A. G. Ponomarenko, A. M. Orishich, and S. P. Shalamov.* **1979, No. 1, 188 [178].**

Pulsed Electric-Discharge CO_2 Laser with Stable Parameters. *A. I. Karapuzikov.* **1979, No. 1, 191 [181].**

Intermode Beats in CO_2 Lasers and their Use in an Automatic Frequency-Control System. *P. A. Bykov, V. Z. Galutin, V. P. Epifanov, A. N. Sviridov, and V. R. Shumakov.* **1979, No. 1, 194 [183].**

Influence of Acoustic Interference and Current Fluctuations on the Technical Line Width of CO_2 Laser Beats. *P. A. Bykov, V. P. Epifanov, and A. N. Sviridov.* **1979, No. 1, 196 [185].**

Simple Carbon Dioxide Amplifier. *V. V. Apollonov, A. I. Barchukov, S. I. Derzhavin, I. G. Kononov, K. N. Firsov, Yu. A. Shakir, and V. A. Yamshchikov.* **1979, No. 1, 199 [188].**

System for Stabilizing the Emission Power of a CO_2 Laser. *A. S. Martynyuk.* **1979, No. 5, 1392 [186].**

CO_2 Laser in Which the Emission Is Modulated by the Discharge Current. *T. I. Deniskina, V. N. Kochetov, O. N. Lazutkin, and O. S. Shin'gin.* **1981, No. 6, 1515 [170].**

Small-Size CO_2 Laser with Transverse High-Frequency Excitation. *Sh. Kh. Zakirov, A. T. Mirzaev, A. A. Sipailo, V. A. Stepanov, and M. Sh. Sharakhimov.* **1982, No. 6, 1473 [143].**

Stable Pulsed CO_2 Laser Based on an LG-22 Laser. *S. Stonis and E. Shirmulis.* **1983, No. 3, 669 [162].**

Miniature Pulsed CO_2 Laser with a Sealed-Off Electron Source. *Yu. I. Bychkov, V. M. Orlovskii, V. V. Osipov, and A. G. Poteryaev.* **1983, No. 5, 1207 [185].**

High-Voltage Current Stabilizer for a Precision CO_2 Laser. *V. I. Gorokhov and O. S. Shan'gin.* **1984, No. 4, 996 [185].**

Stabilized Continuous CO_2 Laser that is Tunable over Lines of Five Bands. *V. O. Petukhov, V. F. Pivovarchik, A. S. Solodukhin, S. Ya. Tochitskii, S. A. Trushin, and V. V. Churakov.* **1987, No. 4, 946 [172].**

Compact Sealed CO_2 Periodic-Pulse Laser. *V. V. Osipov, V. A. Tel'nov, and G. M. Khamidulin.* **1988, No. 1, 210 [181].**

Optothermal Stabilization of CO_2 Waveguide Laser. *E. V. Anufriev, V. P. Biryulin, S. T. Kornilov, I. V. Ostreikovskii, N. M. Prokopova, and E. D. Protsenko.* **1988, No. 2, 452 [164].**

Tunable CO_2 Waveguide Laser. *Yu. G. Agalakov, M. I. Zinchenko, and Yu. A. Rubinov.* **1991, No. 3, 635 [146].**

CO Waveguide Laser with Thermoelectric Cooling. *A. G. Gerasimchuk, S. T. Kornilov, E. D. Protsenko, and S. I. Tymper.* **1991, No. 3, 638 [148].**

High-Power Continuous CO_2 Laser with Cryogenic Cooling. *B. I. Vasil'ev, O. A. Evin, I. D. Tasmagulov, and P. V. Shatokhin.* **1991, No. 5, 1164 [164].**

13.1.5. Solid-state lasers

Nontraditional Method of Laser Pumping (Survey). *Yu. G. Basov.* **1988, No. 6, 1365 [5].**

Optical Module Based on Injection Semiconductor Laser Connected to a Light Guide. *B. V. Alyab'ev and A. A. Matsveiko.* **1977, No. 2, 533 [185].**

Parameters of a Conical Fiber Optics Quantum Amplifier (OQA). *V. P. Konarev, I. N. Matveev, and Yu. V. Trubetskoi.* **1977, No. 2, 535 [187].**

Powerful Laser with Film Q-Switch. *V. A. Parfenov, L. N. Pakhomov, V. Yu. Petrun'kin, and V. A. Podlevskii.* **1977, No. 5, 1434 [174].**

Low-Temperature Ruby Laser with an Optical Delay Line inside the Resonator. *L. S. Kornienko and B. G. Skuibin.* **1978, No. 2, 489 [210].**

Controllable Phototropic Shutter with Increased Accuracy of Synchronization of Single-Pulse Ruby Laser. *V. G. Balenko, V. Z. Kagna, and V. M. Podgaetskii.* **1978, No. 5, 1386 [208].**

Emergency Protection for a Laser-Pump Flash-Lamp Block Fed from an Inductive Energy-Storing Unit. *É. A. Azizov and Yu. G. Gendel'.* **1979, No. 1, 211 [198].**

Frequency-Stabilized Ruby Laser. *A. N. Bondarenko and S. V. Kruglov.* **1979, No. 2, 555 [242].**

Investigation of a Subnanosecond Neodymium Glass Pulse Oscillator with the Aid of High-Speed Oscillography. *A. G. Berkovskii, N. E. Bykovskii, Yu. I. Gubanov, N. V. Gusev, N. V. Pletnev, Yu. V. Senat-skii, G. V. Sklizkov, A. N. Sushchenko, and R. P. Tarasov.* **1979, No. 3, 804 [178].**

Use of KS Glasses for Passive Shutters in Generation of Ultrashort Pulses. *I. M. Korda.* **1979, No. 4, 1125 [226].**

Illuminator for Pumping a Cooled Crystal. *M. A. Dubinskii and B. N. Kazakov.* **1980, No. 5, 1301 [225].**

Determination of the Thermal Operating Parameters of the Active Element of an Yttrium–Aluminum Garnet Laser. *K. N. Evtyukhov, B. Zborzhil, and L. N. Kaptsov.* **1980, No. 6, 1494 [164].**

Picosecond Neodymium Glass Laser System Assembled from Commercial Lasers. *V. V. Blagoveshchenskii, G. Yu. Senyushkin, Yu. G. Zhukovskii, and V. E. Kholmogorov.* **1981, No. 3, 769 [191].**

A Semiconductor Simulator of a Solid-State Laser Radiating a Pulse Packet. *M. N. Zargar'yants, P. V. Dernovskii, and A. I. Ignatov.* **1982, No. 1, 210 [185].**

Multifrequency Laser Source. *A. G. Akmanov and A. M. Val'shin.* **1982, No. 2, 464 [168].**

A Laser Nanosecond Pulse Generator for Plasma Diagnosis. *V. D. Vikharev, L. A. Dorokhin, M. V. Tulupov, and V. Ya. Tsarfin.* **1982, No. 3, 703 [170].**

Single-Frequency Monopulse Neodymium Phosphate Glass Laser with Active Q-Modulation. *V. M. Leont'ev, S. F. Sitnikov, and V. I. Sokolov.* **1982, No. 4, 1000 [199].**

Solid-State Laser Generating a Pulse with a Flat Part. *V. P. Stas'ev and M. Yu. Sukhov.* **1983, No. 4, 953 [190].**

Ruby Laser with Multiple Wavefront Reversal for High-Temperature Plasma Production. *V. A. Boiko, G. A. Koldashov, A. Ya. Faenov, A. I. Fedosimov, and I. N. Tsigler.* **1984, No. 3, 730 [188].**

Laser Using Aluminum-Yttrium Garnet with Neodymium Pumped by Radiation from a High-Frequency Electrodeless Discharge. *S. N. Golikova, P. S. Gusev, V. P. Gus'kov, V. A. Zhukov, S. M. Pechenegov, V. D. Sazhaev, A. B. Sinitsyn, N. V. Teterev, and B. F. Trinchuk.* **1984, No. 3, 733 [190].**

System for Synchronizing Two LTI-5 Lasers. *V. I. Belousov, S. V. Chernyakov, and V. I. Derzhiev.* **1984, No. 4, 990 [180].**

Dynamic Q Control and Single-Pulse Generation in a Solid-State Laser. *I. P. Angelov, G. V. Venkin, D. V. Kazantsev, G. M. Mikheev, and M. Yu. Sklyarov.* **1984, No. 5, 1230 [168].**

Neodymium Laser with an Adjustable Pulse Length in Single-Frequency Single-Shot Emission. *E. P. Mesnyankin, B. M. Sedov, and Yu. V. Tomashevich.* **1984, No. 6, 1477 [161].**

Application of Streamer Semiconductor Lasers to the Study of the Transient Characteristics of Pulsed Photocells. *V. A. Gavanin, V. A. Maksimov, A. Z. Obidin, A. N. Pechenov, Yu. M. Popov, and V. A. Frolov.* **1985, No. 1, 168 [153].**

Quasistationary Neodymium-Glass Laser Generation with Negative Feedback. *S. A. Babin and V. G. Gladyshev.* **1985, No. 3, 676 [158].**

Stabilization of Pulse Delay of YAG:Nd^{3+} Laser. *S. S. Sarkisyan, G. M. Gusakov, and A. A. Komarnitskii.* **1985, No. 3, 678 [160].**

Pump-Lamp Firing-Pulse Generator for Solid-State Lasers. *Yu. S. Denishchik.* **1985, No. 3, 680 [161].**

Compact Power Unit for Solid-State Laser and Optical Amplifier. *V. A. Tyapkin, V. N. Lysun, O. A. Bukin, S. Yu. Stolyarchuk, and A. N. Pavlov.* **1986, No. 2, 457 [176].**

Vacuum-Tube Modulator for Q-Switching in Solid-State Lasers. *N. I. Gerasimenko, A. F. Lomzin, N. V. Pletnev, and A. V. Chernetskii.* **1986, No. 2, 459 [178].**

Generation of Short Light Pulses by Laser with Fast Q-Switching. *V. A. Zaporozhchenko, A. V. Kachinskii, V. V. Rakush, A. A. Stavrov, and N. A. Tylets.* **1986, No. 3, 700 [180].**

YAG:Nd^{3+} Laser for Study of High-Speed Processes. *N. R. Belashenkov, M. V. Inochkin, and V. B. Karasev.* **1987, No. 1, 204 [186].**

Synchronization of Control Systems of LTI-PCh and Arzni-2501 Lasers. *A. P. Vinnichenko and V. I. Kislenko.* **1987, No. 2, 437 [169].**

Synchronization of Q-Switched YAG:Nd^{3+} Laser by Single Picosecond Pulse. *I. G. Arutyunyan, S. P. Ishkhanyan, and T. A. Papazyan.* **1987, No. 4, 954 [179].**

Operation of ILGN-705 Laser in Periodic-Pulse Mode. *A. M. Gamazeishchikov, I. L. Kamardin, A. A. Kuchinskii, V. A. Rodichkin, and V. A. Sheverev.* **1987, No. 5, 1200 [164].**

System for Synchronization of Radiation of Three LTIPCh Lasers with External Devices. *V. A. Musikhin, A. V. Pribytkov, and I. A. Semiokhin.* **1987, No. 5, 1259 [213].**

Ytterbium-Erbium Glass Laser for Photometric Systems. *G. I. Kadaner, E. V. Kuvaldin, and Yu. K. Fedorov.* **1988, No. 1, 207 [178].**

Yttrium-Aluminum-Garnet Dual-Frequency Generator of Subnanosecond Radiation Pulses. *Yu. I. Babikov, Kim Syn Ip, and V. E. Mironov.* **1990, No. 1, 181 [172].**

Low-Temperature Ruby Laser. *D. I. Zenkov, V. A. Klebtsov, I. M. Markevtsev, M. P. Monakhov, V. V. Platonov, P. V. Sosnin, and O. M. Tatsenko.* **1990, No. 4, 935 [196].**

Tunable High-Power Emitter based on InGaAsP/GaAs Quantum-Well Injection Laser. *D. Z. Garbuzov, S. N. Zhigulin, V. G. Agafonov, V. I. Brynzar', M. V. Ivanov, and V. V. Popushoi.* **1990, No. 5, 1187 [196].**

Q-Switched Laser with Variable Pulse Duration. *D. I. Maleev, G. M. Mikheev, and T. N. Mogileva.* **1990, No. 5, 1190 [198].**

Compensation for Acoustic Oscillations in DKDP Crystals Used for Prolonged Generation Modes in Solid-State Lasers. *V. A. Rusov and I. V. Korableva.* **1991, No. 2, 396 [151].**

Generation of Radio-Frequency Pulse Trains by Neodymium-Glass Laser. *A. V. Alekseev, L. I. Andreeva, I. V. Korableva, and V. A. Rusov.* **1991, No. 3, 643 [152].**

Synchronized Picosecond Laser and Subnanosecond Electron Beams for Excitation of Transparent Dielectrics. *B. P. Aduev, D. I. Vaisburd, A. A. Kondrashov, and P. A. Pal'yanov.* **1991, No. 3, 646 [155].**

"Garnet-WFI" High-Energy Two-Channel Laser. *S. P. Andreev, S. A. Batishche, A. A. Kuz'muk, N. A. Malevich, V. A. Mostovnikov, and A. B. Ryabtsev.* **1991, No. 5, 1157 [158].**

13.1.6. Dye and light-pumped lasers

Optical Resonator for Pulsed Dye Laser Pumped by a Powerful Nitrogen Laser. *I. M. Beterov, A. A. Chernenko, and A. V. Shishaev.* **1978, No. 4, 1099 [234].**

Installation for the Measurements of the Intensity of the Second Optical Harmonic of Laser Radiation in a Liquid. *V. P. Ermakov, I. S. Kabanov, and V. F. Shabanov.* **1979, No. 1, 202 [190].**

Pulsed Submillimeter Laser with Optical Pumping for Plasma Diagnostics. *O. F. Manita.* **1979, No. 2, 552 [240].**

Lamp-Pumped Dye Laser for Examining the Induced Absorption in Active Media Based on Complex-Molecule Solutions. *M. M. Asimov, V. N. Gavrilenko, and A. N. Rubinov.* **1983, No. 3, 683 [174].**

Annular Cell for a High-Power Liquid Laser with Transverse Pumping. *A. M. Korobov and S. V. Nikolaev.* **1983, No. 6, 1414 [148].**

Effect of the Lamp Supply Mode on the Characteristics of a Dye Laser. *M. F. Lagutin, N. P. Mustetsov, and A. A. Zarudnyi.* **1984, No. 2, 447 [178].**

Polarizing Interference Filter for an LZhI-402 Dye Laser. *A. V. Voronin, B. V. Kuznetsov, and V. M. Kuznetsov.* **1984, No. 6, 1482 [165].**

A Laser with a Flowing Dye Solution. *M. V. Korzhik and V. V. Kuz'min.* **1985, No. 1, 186 [168].**

Stable Laser for the Ear Infrared Region Excited by a Pulsed CO_2 Laser with Passive Quality Modulation. *É. Maldutis, É. Shirmulis, and A. Filipavichyus.* **1985, No. 2, 465 [186].**

Liquid-Circulation System for Continuous Dye-Jet Laser. *B. V. Bondarev, S. M. Kobtsev, and V. B. Sorokin.* **1986, No. 1, 202 [176].**

High-speed Wavelength-Switching Device for Dye Laser. *V. I. Kabelka, R. E. Rimkyavichyus, A. K. Rusyatskas, and R. A. Yakubenas.* **1988, No. 1, 212 [183].**

High-Energy Dye Lasers with Low Divergence. *A. M. Korobov and S. V. Nikolaev.* **1988, No. 4, 1020 [163].**

High-Power Lamp-Pumped Organic-Solution Laser. *V. P. Pelipenko, M. I. Dzyubenko, and V. V. Shevchenko.* **1988, No. 4, 1023 [165].**

13.1.7. Measurement of laser parameters

Measurement of Frequency Characteristics of a Doppler Broadened Laser Amplification Line. *M. V. Danileiko, T. V. Rozhdestvenskaya, and V. P. Fedin.* **1977, No. 2, 537 [189].**

Measurement of Luminance Contrast of High-Power Laser. *S. T. Durmanov and L. N. Plyashkevich.* **1977, No. 4, 1171 [230].**

Simple Method of Measuring Fluctuations in Diameter of a Laser Beam. *M. I. Lobachev, E. M. Rabinovich, and V. V. Tuchin.* **1977, No. 4, 1174 [233].**

Measurement of Phase Distribution in a Laser Beam. *N. K. Berger, I. A. Deryugin, and A. V. Mikheenko.* **1978, No. 1, 209 [197].**

Miniature Laser Power Measurer. *A. I. Teslenko, V. D. Kukush, and L. A. Didyk.* **1978, No. 1, 217 [204].**

Visualizer for Infrared Laser Emission Field. *G. I. Aponin, A. A. Besshaposhnikov, and A. I. Zakharchenko.* **1978, No. 5, 1392 [213].**

High-Speed Method of Recording the Divergence Angle of a CO_2 Laser. *V. P. Andronov, L. M. Ivanenko, and O. V. Klopunov.* **1978, No. 6, 1600 [130].**

Choice of Reflection Coefficients of the Resonator Mirrors of Laser for Intraresonator Q-Switching. *É. S. Vorobeichikov, B. L. Pivovarov, L. N. Popov, and B. N. Poizner.* **1979, No. 1, 205 [193].**

Interference Method of Measuring Focal Distances of Thermal Lenses in Active Elements of Solid-State Lasers. *Yu. L. Kopylov.* **1979, No. 1, 207 [195].**

Measurement of Displacement of Laser Beam in Media with Variable Optical Thickness. *V. V. Efremenko and L. N. Kornilov.* **1980, No. 2, 487 [178].**

Determination of Direction of Laser Beam by Measuring Polarization of Reflected Beam. *M. I. Lobachev, É. M. Rabinovich, and V. V. Tuchin.* **1980, No. 5, 1276 [205].**

Setup for Measuring Optical Properties of Active Media during Pulsed Pumping. *V. A. Sterligov and V. B. Bortsov.* **1980, No. 6, 1476 [148].**

Photodiode Laser Power Meter. *S. P. Kalashnikov and A. A. Matsveiko.* **1981, No. 2, 488 [189].**

Adjustment of a Gas Laser without the Use of a Photocell. *L. N. Popov, B. N. Poizner, and A. V. Voitsekhovskii.* **1981, No. 2, 546 [242].**

Device for Recording the Decay of a Burst of Light Pulses. *E. S. Voropai, Yu. I. Postoyanov, and P. A. Torpachev.* **1981, No. 4, 1032 [195].**

Wide-Range Integrated-Circuit Digital Laser-Power Meter. *A. I. Kirillov, V. I. Kishko, and V. P. Morskov.* **1981, No. 4, 1034 [197].**

Instrument for Measurement of Laser Energy. *V. I. Lisichenko and V. A. Chernobai.* **1981, No. 5, 1268 [159].**

Registration of a Pulsed Laser Beam by a Matrix of Charge-Coupled Devices. *V. F. Volkov, A. K. Peshel', S. M. Slobodyan, and I. S. Tyryshkin.* **1981, No. 6, 1522 [176].**

Foil Method for the Operational Monitoring of the Spatial Distribution of the Energy Density of the Radiation of a Pulsed Laser. *B. A. Knyazev and S. V. Lebedev.* **1982, No. 2, 466 [169].**

Method for Determining the Coherence Region of Two Light Beams. *V. A. Grinchuk. E. F. Kuzin, S. D. Kuz'michev, M. L. Nagaeva, and G. A. Ryabenko.* **1982, No. 3, 768 [223].**

A System for Recording the Radiation Contrast of a High-Power Pulsed Laser. *A. E. Danilov, Yu. A. Mikhailov, G. V. Sklizkov, and S. I. Fedotov.* **1982, No. 5, 1191 [130].**

Multichannel System for Precision Energy Measurement for Pulsed Lasers. *A. V. Larikov, A. A. Malyutin, and A. N. Filippov.* **1983, No. 3, 674 [166].**

Digital Pyroelectric $BaTiO_3$ Calorimeter for Energy Measurement of Laser Pulses. *S. S. Alimpiev, L. S. Kremenchugskii, É. M. Khokhlov, and A. Ya. Shul'ga.* **1983, No. 3, 677 [168].**

Method of Measuring the Wall Temperature in a Metal-Vapor Laser. *L. B. Direktor, A. V. Karasev, M. M. Malikov, and S. N. Skovorod'ko.* **1983, No. 5, 1214 [191].**

Calorimeter for Continuous Measurement of Laser Radiation Power to 10 kW. *P. G. Afanas'ev, O. S. Bogdanov, V. D. Daragan, A. Yu. Kotov, V. I. Nalivaev, and V. B. Pampura.* **1984, No. 1, 197 [180].**

A Straight-Through Thermocouple Instrument Measuring the Power of Laser Radiation. *P. G. Afanas'ev, O. S. Bogdanov, V. D. Daragan, A. Yu. Kotov, V. I. Nalivaev, and V. B. Pampura.* **1984, No. 1, 231 [210].**

Visualization of Submillimeter Laser Radiation with a Pyroelectric Television Camera. *A. A. Lash and D. N. Yundev.* **1984, No. 3, 736 [193].**

Apparatus for Recording Watt–Current Characteristics for a Pulsed Injection Laser. *Ya. A. Aarik.* **1984, No. 4, 998 [186].**

Measuring Energy of Picosecond Laser Pulses. *É. Adomaitis, Z. Dobrovol'skis, and A. Krotkus.* **1984, No. 4, 1000 [188].**

Transmitted-Power Meter for Production CO_2 Laser. *Yu. L. Sitenkov and Yu. M. Khokhlov.* **1984, No. 5, 1234 [172].**

A Matrix Analyzer for the Intensity Distribution in a Laser Beam. *R. M. Rakhimov, O. R. Badrutdinov, I. S. Fishman, and V. N. Leibov.* **1985, No. 1, 181 [164].**

Divergence Measurement of Laser Radiation by the Interference of Polarized Beams in Crystals. *N. S. Kazak, A. S. Lugina, E. M. Miklavskaya, A. V. Nadenenko, V. K. Pavlenko, and Yu. A. Sannikov.* **1985, No. 2, 461 [183].**

Measurement of Divergence of CO_2-Laser Radiation. *A. A. Shepelenko and V. B. Shulyat'ev.* **1985, No. 5, 1161 [157].**

Device for Monitoring Spectral Characteristics of Laser Radiation. *E. K. Kirilenko, S. V. Rogulyak, and V. B. Markov.* **1986, No. 5, 1171 [169].**

Laser-Radiation Focusing Sensor. *E. I. Dmitriev and A. P. Shestakov.* **1987, No. 2, 482 [206].**

Measurement and Stabilization of Direction of Laser-Beam Axis. *S. V. Yakushkin, I. I. Sukhanov, and Yu. V. Troitskii.* **1987, No. 4, 956 [181].**

Oscillographic Method for Determination of Edge Profiles of Subnanosecond Laser Pulses with Large Power Swings. *V. A. Malinov, A. V. Charukhchev, and V. N. Chernov.* **1987, No. 6, 1450 [155].**

Two-Channel System for Determination of Small Optical Losses of Laser Radiation with an Amplitude Resolution of $>10^4$. *M. A. Bukhshtab, V. N. Koromyslichenko, and A. Yu. Kirillov.* **1988, No. 2, 443 [157].**

Study of Systems for Space Filtering of Multimode Laser Radiation. *I. N. Zelinskii, E. S. Polyakova, and V. T. Chernykh.* **1988, No. 2, 454 [166].**

Device for Checking Energy and Orientation of Laser Radiator. *V. V. Butskii, N. V. Naumov, O. E. Shablinskii, and Yu. N. Shcherbich.* **1988, No. 3, 763 [203].**

Measurement of Excitation Efficiency and Energy Yield in Open Resonators. *B. M. Bulgakov, M. P. Natarov, and V. N. Skresanov.* **1988, No. 4, 963 [118].**

Apparatus for Measurement of Dynamic Conductance of Discharge Element of Continuous Ion Laser. *E. D. Berezikov, K. V. Kiryunikov, and B. Ya. Yurshin.* **1988, No. 4, 1027 [168].**

Measurement of Cross-Sectional Distribution of Laser-Beam Intensity. *N. I. Syromyatnikov.* **1989, No. 2, 460 [181].**

Device for Measurement of Plasma-Pulse Radiation Energy. *V. N. Sadovskii and V. G. Brovkovich.* **1989, No. 3, 690 [175].**

Radiation-Energy Meter for Periodically Pulsed Laser. *A. A. Il'in and G. M. Churikov.* **1989, No. 4, 984 [223].**

Power Supply for Control of Single-Pulse Lasers. *Yu. S. Denishchik.* **1990, No. 6, 1426 [177].**

Measurement of Characteristics of Semiconductor Laser Emitters by Temperature-Jump Method. *A. P. Erzikov and O. V. Kudryashov.* **1991, No. 2, 470 [213].**

Use of Diffraction Couplers to Determine Laser-Radiation Parameters. *S. V. Alekseev.* **1991, No. 4, 905 [153].**

13.1.8. Measurement of parameters of pulsed light sources

Semiconductor Detectors for the Measurement of Infrared Radiation Pulses. *A. B. Meshcheryakov.* **1979, No. 1, 235 [220].**

High-Sensitivity Systems for Recording the Spectral and Temporal Characteristics of Pulsed Light. *I. N. Andreev, I. Ya. Braverman, G. A. Meerovich, and V. N. Ulasyuk.* **1979, No. 3, 813 [185].**

System for Recording the Activation Times of Pulsed Light Source. *G. I. Mishin and O. G. Rutkin.* **1979, No. 3, 848 [216].**

Time Broadening of a Light Signal in Mirror Optical Systems. *V. S. Bulygin, Yu. A. Drozhbin, and B. M. Stepanov.* **1980, No. 4, 1012 [194].**

Spectrograph for Investigating Spectra of Pulsed Infrared Lasers. *G. B. Gorlin, I. I. Komissarova, G. V. Ostrovskaya, Yu. I. Ostrovskii, L. G. Partiskii, V. N. Filippov, and E. N. Shedova.* **1982, No. 4, 1009 [207].**

Detection of Synchrotron Radiation under the Conditions of Pulsed Noise. *V. M. Lachinov, A. A. Mal'tsev, and V. P. Filin.* **1982, No. 5, 1084 [43].**

Wide Dynamic Range Meter for the Amplitude Measurement of Short Optical Signals. *B. A. Abramov, R. R. Agishev, G. I. Il'in, and Yu. E. Pol'skii.* **1983, No. 3, 680 [171].**

A Device for Recording Nanosecond Optical Pulses in the Presence of a Quasistationary Background. *V. M. Zalkind, V. D. Kotsubanov, and S. I. Fedotov.* **1984, No. 2, 438 [171].**

Device for Time Referencing of Pulses from Semiconductor Laser Detector. *A. I. Naidenko, P. V. Mindra, G. G. Andrievskii, and A. A. Kuznetsov.* **1984, No. 5, 1232 [170].**

Photodetector for Semiconductor-Laser Pulses. *A. I. Naidenko, P. V. Mindra, S. A. Bobrikov, and G. G. Andrievskii.* **1985, No. 6, 1408 [154].**

Detector for Pulsed Infrared Radiation. *S. Ashmontas and E. Shirmulis.* **1988, No. 3, 738 [183].**

Automated Multichannel System for Measurement of Rapidly Varying Optical Signals. *V. G. Brovchenko, A. M. Kirichenko, A. V. Mitrokhin, V. V. Seregin, Yu. A. Tarabrin, and M. M. Tsygankov.* **1989, No. 1, 198 [174].**

Multiparameter Analyzer of Picosecond Optical Processes. *V. I. Ivanov, A. A. Ruskevich, and A. N. Yuzhakov.* **1989, No. 1, 205 [180].**

Multichannel Laser-Pulse-Energy Measuring System Based on an Élektronika BK-0010-01 Personal Computer. *D. I. Maleev, G. M. Mikheev, and T. N. Mogileva.* **1991, No. 5, 1063 [80].**

13.1.9. Control of radiation parameters

Controlling Duration of CO_2 Laser Radiation. *V. M. Borisov, Yu. A. Satov, and V. V. Sudakov.* **1977, No. 1, 230 [201].**

Device for Scanning a Laser Beam at a Fixed Frequency. *I. L. Kuznetsov, Yu. M. Bukker, and L. B. Sokolova.* **1977, No. 2, 571 [219].**

Optimization of Selector Parameters for a One-Frequency Tunable One-Pulse Laser. *S. A. Mikhnov and V. P. Khyuppenen.* **1977, No. 3, 817 [181].**

Synchronization of the Lighting of Pumping Lamps in a Laser with Modulated Quality. *M. A. Sungurovskii and R. Z. Besedovskii.* **1978, No. 3, 769 [200].**

Apparatus to Increase the Efficiency of a Saturating Absorber in Generation of Ultrashort Light Pulses. *A. S. Kuch'yanov and V. D. Ugozhaev.* **1978, No. 5, 1388 [209].**

Electrooptical System for Shaping Laser Pulses with Maximum Emission Contrast. *M. P. Kalashnikov, Yu. A. Mikhailov, G. V. Sklizkov, S. I. Fedotov, and A. N. Fedorov.* **1978, No. 6, 1594 [124].**

Interference-Immune Control Module of a Pulsed Frequency Laser. *V. A. Kalachikov, V. S. Kondrat'ev, and A. V. Kovtun.* **1979, No. 3, 809 [182].**

Synchronization of an LG-36A Laser with an SFR-2M Camera. *S. I. Grinyuk and V. I. Lisichenko.* **1979, No. 3, 855 [223].**

Device for Controlling a Multicascade Electrooptical Light Deflector. *B. M. Yurchikov, V. Ya. Goverdovskii, and V. B. Fedorov.* **1980, No. 6, 1468 [142].**

Mode-Locked Laser Pulse Selector. *K. N. Bakinovskii, G. N. Baranov, N. N. Shavel', and G. V. Sharonov.* **1981, No. 4, 1029 [192].**

A Generator for the Electrooptical Synchronization of the Modes of a Laser. *V. I. Annenkov, Yu. D. Bogunenko, N. A. Pershin, and Yu. P. Shcherbak.* **1982, No. 1, 208 [184].**

A Simple Setup for Changing the Polarization of Laser Radiation. *Yu. E. Gorbatyi, I. V. Babashov, and G. V. Bondarenko.* **1982, No. 5, 1299 [215].**

Adjustment Control Facilities in the Optical Part of a Laser System. *A. P. Allin, N. E. Bykovskii, V. E. Grigor'ev, V. V. Ivanov, Yu. V. Senatskii, C. V. Sklizkov, B. N. Shpilevoi, A. N. Yuzhakov, and A. R. Yakushev.* **1983, No. 1, 184 [152].**

Using a Tacitron for Controlling the Electrooptical Shutter of a Laser Operated in the Pulsed-Periodic Mode. *Yu. A. Tarabrin and I. L. Yudin.* **1983, No. 2, 437 [180].**

Low-Voltage System for Selecting an Isolated Light Pulse from a Train of Picosecond Pulses. *A. A. Demidov, G. M. Esayan, and Ya. L. Kalaidzidis.* **1984, No. 3, 727 [186].**

Synchronization System for High-Power Pulsed Laser with Optoelectronic Control. *V. V. Apollonov, S. I. Zienko, V. V. Brytkov, S. V. Murav'ev, and V. A. Yamshchikov.* **1984, No. 5, 1224 [163].**

Producing Nanosecond and Subnanosecond Laser Pulses with Fast Shutters. *V. V. Volenko, A. F. Ivanov, L. A. Myalitsin, L. A. Osadchuk, and A. I. Saukov.* **1985, No. 1, 189 [170].**

Efficient High-Frequency Loss Modulator in Laser with Active Mode Synchronization. *I. P. Angelov, G. V. Venkin, D. V. Kazantsev, and G. M. Mikheev.* **1985, No. 4, 947 [192].**

Use of High-Current Photocells to Control Laser-Pulse Shape. *E. V. Nilov and V. A. Rusov.* **1985, No. 5, 1159 [155].**

Mirror-Deflector Controller in Laser Graphics Read/Write Device. *N. E. Detinenko, A. A. Ivanov, Yu. S. Nechaev, T. G. Yakovleva.* **1986, No. 2, 350 [79].**

Digital-Delay Unit for Laser-Control Pulses. *A. A. Iogansen, V. Yu. Pestunov, and S. G. Cheskis.* **1986, No. 3, 703 [182].**

Selective Attachment for Radiator of ILGN-706 CO Laser. *A. A. Kon'kov, E. N. Lotkova, D. I. Ponomarev, and I. P. Yuzhakova.* **1986, No. 3, 711 [189].**

Piezoelectric Laser-Beam Deflector. *A. L. Kuz'minskii and V. I. Shmal'gauzen.* **1986, No. 5, 1214 [207].**

Controller for Acousto-Optic Modulator in Laser Plotter. *A. A. Ivanov, Yu. S. Nechaev, and T. G. Yakovleva.* **1986, No. 5, 1216 [208].**

Control of Laser Electrooptic Shutter According to Luminescence Level of Active Medium. *Yu. S. Denishchik and V. V. Murga.* **1986, No. 6, 1417 [160].**

Low-Voltage Photoelectronic System for Isolating an Ultrashort Pulse with any Serial Number in a Train. *M. I. Demchuk, S. M. Dmitriev, V. P. Mikhailov, G. A. Pribytok, and A. V. Strashko.* **1987, No. 3, 682 [165].**

Programmable Electrooptic System for Modulation of Continuous Laser Radiation for Study of Optical Bistability. *S. P. Apanasevich, A. V. Lyakhnovich, and G. V. Sinitsyn.* **1987, No. 5, 1190 [156].**

Pulse Selector for Mode-Locked Lasers. *K. N. Bakinovskii, G. I. Rai, and G. V. Sharonov.* **1987, No. 6, 1457 [160].**

Generator of Heterodyne Signals for Laser Phase Meter. *S. N. Gorbatyuk, A. V. Maiorov, and V. Ya. Sup'yan.* **1988, No. 3, 760 [201].**

Piezoelectric Wavefront Corrector. *L. V. Antoshkin, O. N. Emaleev, and V. P. Lukin.* **1988, No. 5, 1349 [211].**

Device for Time Referencing of Laser Pulses. *G. G. Andrievskii, P. V. Mindra, A. I. Naidenko, and V. V. Chirkova.* **1989, No. 2, 458 [179].**

Electronic Unit for Feedback in Pulsed Lasers. *B. V. Anikeev, V. D. Zakharchenko, V. V. Krutyakov, and A. Yu. Pospelov.* **1989, No. 5, 1206 [206].**

Electronic Q-Control and Single-Pulse Selection in Passively Mode-Locked Solid-State Laser. *A. G. Akmanov, O. A. Alekseev, A. M. Bal'shin, and I. Z. Sharipov.* **1990, No. 3, 673 [175].**

Fiber-Optic Phase Modulators Based on Compound Resonator. *V. G. Kovalenko, E. I. Alekseev, and A. V. Kukhta.* **1990, No. 4, 932 [193].**

Low-Loss Diffusing Element for Suppression of Spurious Interference from Laser Illuminator. *A. D. Kudakov, N. B. Kudakova, K. M. Mukimov, and Zh. Sh. Siranov.* **1990, No. 4, 968 [223].**

13.1.9.1. Frequency control

Wide-Band Tunable Laser Locking System. *V. G. Gol'dort, V. F. Zakhar'yash, and B. A. Kurnevich.* **1978, No. 1, 213 [201].**

Electronic System for Stabilizing the Difference Frequency of Two Lasers. *V. B. Vergunov, M. I. Vol'nov, and D. A. Tyurikov.* **1978, No. 3, 765 [197].**

System for Stabilizing the Emission Frequency of a High-Power Laser against a Reference Laser. *O. A. Kolosovskii, N. A. Semenovskaya, V. S. Tkachenko, N. S. Fertik, and A. V. Chuprakov.* **1978, No. 5, 1384 [206].**

Wideband Unit for Phase–Frequency Locking of Lasers. *V. G. Gol'dort, V. F. Zakhar'yash, and B. A. Kurnevich.* **1979, No. 2, 557 [244].**

Simple System for Frequency Stabilization of a Gas Laser. *V. G. Gudelev and V. M. Yasinskii.* **1980, No. 1, 223 [215].**

Frequency Stabilization System for Lasers. *V. G. Gol'dort and A. É. Om.* **1980, No. 3, 749 [190].**

Device for Adjusting a Resonator and Retuning the Frequency of a Laser. *L. S. Vasilenko, A. S. Dychkov, N. M. Dyuba, and M. N. Skvortsov.* **1984, No. 5, 1267 [201].**

Laser Frequency Selectors based on ML-3, ML-4, and ML-5 Electro-Optic Modulators. *E. N. Dvoryaninov, A. P. Savikin, and V. B. Tsaregradskii.* **1985, No. 6, 1410 [155].**

System for Stabilization of Laser Frequency by Slope of External Interferometer. *V. G. Gol'dort, A. N. Goncharov, A. E. Om, and M. N. Skvortsov.* **1989, No. 1, 213 [187].**

13.1.9.2. Emission-power control

Diagram of Synchronous Light Modulator. *G. N. Eritsyan, R. A. Melkonyan, Yu. R. Nazaryan, and A. A. Saakyan.* **1979, No. 1, 112 [108].**

Dacron Attenuator of CO_2-Laser Radiation. *G. I. Levin.* **1979, No. 2, 597 [279].**

System for Stabilizing the Emission Power of a CO_2 Laser. *A. S. Martynyuk.* **1979, No. 5, 1392 [186].**

Continuous Regulation of Pumping Energy in Laser Power Systems. *V. V. Valyavko, B. V. Krylov, and A. A. Mozgo.* **1980, No. 5, 1274 [203].**

Gas Laser Discharge Current Stabilizer. *V. G. Gudelev, V. M. Kuznetsov, and V. M. Yasinskii.* **1981, No. 4, 1002 [167].**

Avalanche-Transistor Voltage-Pulse Generator for Controlling an Electrooptical Shutter. *D. I. Maleev.* **1982, No. 6, 1394 [75].**

Device for Controlling Electrooptical Shutters and Deflectors. *V. B. Gurskii, R. E. Pyatetskii, and I. B. Shuleiko.* **1982, No. 6, 1440 [114].**

Simple Thyratron Switch for a Q Switch. *I. G. Muradov.* **1983, No. 4, 980 [215].**

Optical-Fiber Modulator. *A. V. Kukhta, E. I. Sverchkov, and G. I. Telegin.* **1984, No. 4, 974 [165].**

Device for the Pulse-Amplitude Modulation of Laser Beam Power. *B. A. Zverev, S. V. Pakhomov, and P. I. Savostin.* **1984, No. 4, 993 [183].**

Wide-Band Laser Intensity Stabilization System. *K. V. Kiryunikov and A. V. Shishaev.* **1984, No. 6, 1480 [164].**

Controller for Laser Modulator. *E. V. Nilov and V. A. Rusov.* **1985, No. 6, 1406 [152].**

Regulation of Radiated Power of LTI-701 Laser. *V. E. Voronich, G. A. Gachko, and S. A. Maskevich.* **1986, No. 5, 1169 [167].**

Electrooptic Light Modulators. *V. A. Pilipovich, V. I. Polyakov, and A. I. Konoiko.* **1987, No. 1, 199 [182].**

Power Regulator for Helium-Neon Laser. *V. E. Kositsyn and A. V. Timashov.* **1987, No. 1, 208 [190].**

Intensity Calibration for Study of Light Scattering. *A. V. Batunina, V. V. Voronkov, V. P. Kalinushkin, and T. M. Murina.* **1987, No. 2, 424 [159].**

Power-Stabilization System for He-Ne Laser with Transverse Microwave Discharge. *Z. Imankulov, M. M. Mirinoyatov, I. A. Solov'ev, and S. K. Persheev.* **1987, No. 4, 952 [177].**

Faraday-Effect Light Modulator. *V. E. Kositsyn.* **1987, No. 5, 1180 [148].**

Power Stabilization of He-Ne Laser. *V. N. Maksimov.* **1987, No. 5, 1261 [215].**

Modulator for Helium-Neon Laser with Microwave Pumping. *A. P. Naumov and V. V. Korovin.* **1988, No. 2, 449 [162].**

Stable Economical Current Modulator for Light-Emitting Diodes. *A. G. Varenik and A. A. Zhurin.* **1988, No. 3, 699 [153].**

Power Controller for Semiconductor Laser. *G. G. Andrievskii, P. V. Mindra, A. I. Naidenko, and A. V. Pencho.* **1989, No. 1, 216 [190].**

Stabilization Device for Electrooptic Modulator. *V. M. Lukashev and A. F. Rubtsov.* **1990, No. 2, 424 [171].**

13.2. Light detectors

Method of Reducing Intermediate Frequency in Optical Heterodyning. *V. R. Zaslavskaya and G. G. Chizhikov.* **1978, No. 1, 207 [195].**

Effect of a Pulsed Electric Field on Nuclear Emulsion Exposed to Cosmic Rays. *A. B. Akopova, N. V. Magradze, L. V. Melkumyan, and I. P. Prokhorenko.* **1978, No. 2, 330 [59].**

Multiwire Gas Counter for Coordinated Measurements in the Vacuum Ultraviolet Region. *G. D. Bogomolov, Yu. V. Dubrovskii, and V. D. Peskov.* **1978, No. 3, 779 [209].**

Coordinate Gas Counters for the Investigation of Spectra in the Vacuum-Ultraviolet Region. *G. D. Bogomolov, Yu. V. Dubrovskii, and V. D. Peskov.* **1978, No. 4, 1073 [210].**

Cooling of Photoreceivers. *V. A. Safonov and I. G. Vainer.* **1978, No. 4, 1128 [259].**

Visualizer for Infrared Laser Emission Field. *G. I. Aponin, A. A. Besshaposhnikov, and A. I. Zakharchenko.* **1978, No. 5, 1392 [213].**

Photoreceiver for the Investigation of Resonant Fluorescence of Inert Gases in the Vacuum Ultraviolet. *P. K. Telbizov, E. D. Mishchenko, and M. P. Chaika.* **1979, No. 1, 180 [170].**

Laser Dosimeter. *P. A. Kuznetsov and V. M. Fedorov.* **1979, No. 3, 857 [224].**

UV and X-Ray Geiger Counters with a Spatial Resolution of 0.3 mm. *V. D. Peskov.* **1979, No. 5, 1395 [189].**

Coordinate Gas Scintillation X-Ray and UV Photon Counters. *V. D. Peskov.* **1980, No. 2, 507 [196].**

Coordinate Gas Detector of Ultraviolet and X-Ray Photons with an hf Field. *V. D. Peskov.* **1980, No. 4, 1021 [203].**

Spark Counters for Vacuum Ultraviolet and X-Ray Photons. *V. D. Peskov.* **1980, No. 4, 1025 [206].**

Time-Gain Control of Optical Receiver of Laser Rangefinder. *G. I. Il'in, A. N. Pikulev, and Yu. E. Pol'skii.* **1980, No. 5, 1268 [199].**

Photoelectric Radiation Pyrometer. *A. D. Volchek and V. M. Dzhaizakov.* **1981, No. 3, 825 [242].**

Wide-Band Fast-Acting Receiver of Electromagnetic Radiation. *V. N. Chernyakov and V. I. Kukhtevich.* **1981, No. 5, 1275 [165].**

Array of Metal–Oxide–Metal Thin-Film Diode Radiation Receivers. *M. I. Kostenko and V. I. Stroganov.* **1981, No. 6, 1539 [190].**

Calibration of Time Sweep in the Agat Photochronograph. *O. M. Brekhov, A. A. Vinogradova, and V. B. Luzanov.* **1981, No. 6, 1559 [207].**

A Differential Photodetector. *E. V. Blinov and P. P. Kuleshov.* **1982, No. 1, 268 [234].**

Erasing of a Latent Image in a Photoemulsion by a Pulsed Electric Field. *B. A. Dolgoshein, A. N. Lebedev, and S. V. Somov.* **1982, No. 2, 329 [48].**

Rubren-Based Film Actinometer for Ultraviolet Radiation. *A. S. Arutyunov.* **1982, No. 3, 769 [224].**

Photographic Recording of Pulsed CO_2 Laser Radiation by Thermal Sensitization of Photoemulsions. *V. I. Kovalev, A. R. Lesiv, F. S. Faizullov, and V. B. Fedorov.* **1983, No. 1, 180 [149].**

Increasing the Sensitivity of Photographic Film for Track Photography in Streamer Chambers. *A. A. Artamonov, E. M. Gushchin, V. V. Zhukov, A. N. Lebedev, and S. V. Somov.* **1984, No. 4, 858 [70].**

Fluorescent Quantum Counter for Wavelengths up to 700 nm Based on the Dye Oxazine-1. *V. A. Petukhov and L. P. Savvina.* **1984, No. 4, 979 [170].**

General-Purpose System for Recording Weak Pulsed or Continuous Light Signals. *A. B. Berezin, A. D. Popov, and D. I. Kataev.* **1984, No. 4, 983 [174].**

Destruction of the Latent Photographic Image by Laser Radiation. *V. V. Kushin, B. K. Lyapidevskii, and N. B. Khokhlov.* **1984, No. 4, 1035 [218].**

Electrooptical Photographic Arrangement. *A. T. Starovoitov and E. I. Snetkov.* **1985, No. 2, 505 [222].**

Use of Electric Field to Increase Nuclear Emulsion Sensitivity. *A. Ya. Didenko, B. D. Lemeshkov, and I. N. Moroz.* **1985, No. 3, 590 [83].**

System for Recording Bivariate Intensity Distribution of Optical Radiation. *R. R. Vil'danov, D. A. Gladyshev, I. A. Deryugin, and A. T. Mirzaev.* **1985, No. 4, 936 [183].**

Film Converters of Ultraviolet Radiation. *O. P. Gavrishchuk, and V. K. Semenov.* **1985, No. 4, 944 [190].**

Precision Photodetector with Frequency Output. *A. S. Martynyuk and A. V. Sachkov.* **1985, No. 5, 1156 [153].**

Photodetector with Electronic Protection from Strong Exposures. *V. I. Ermakov, A. V. Komotskov, and I. S. Moshnikov.* **1986, No. 1, 246 [211].**

Electric-Field Distribution in Photographic Film. *A. Ya. Didenko and B. D. Lemeshko.* **1986, No. 2, 468 [187].**

Increasing the Sensitivity of Photographic Materials by a Strong Electric Field for Signal Recording from an Oscilloscope Screen. *A. Ya. Didenko, B. D. Lemeshko, and V. A. Ostrovskii.* **1986, No. 2, 471 [189].**

TIBR Shadow Pulse Recorder for Diagnosis of Nonstationary Phase Objects. *T. P. Kosoburd, V. A. Krasnov, and Yu. M. Sorokin.* **1987, No. 1, 202 [185].**

Photoelectric Shadow Diffraction Method. *V. E. Alekhin and I. V. Ershov.* **1987, No. 2, 426 [161].**

Ultrahigh-Speed Color Photography of Pulsed Electrical Discharges. *N. I. Gerasimenko, N. A. Grashina, A. G. Medvedkov, A. B. Meshcheryakov, and N. V. Pletnev.* **1988, No. 1, 245 [212].**

Operation of VSK-5 High-Speed Moving-Image Camera with IAB-451 Shadow-Indication Instrument. *Yu. L. Sharov and A. E. Kim.* **1988, No. 2, 500 [199].**

Multichannel Optical Recording System with Dark-Noise Compensation. *A. P. Demin.* **1988, No. 6, 1542 [150].**

Multichannel Recorder of Low-Intensity Optical Spectra. *G. I. Aponin, A. A. Besshaposhnikov, and D. M. Kulakov.* **1990, No. 3, 656 [160].**

Quantum-Magnetometer Converter of Light Intensity to Frequency. *E. N. Bushmakin and R. M. Umarkhodzhaev.* **1990, No. 3, 659 [162].**

40-Channel Digital Photodetector (Diocon). *V. S. Rylov, V. A. Miller, S. V. Moiseev, A. F. Myasnikov, V. N. Sivenkova, and V. P. Simonov.* **1990, No. 6, 1380 [140].**

13.2.1. Detectors with photocells and photomultipliers

Dissectors and Their Uses (Review). *S. S. Vetokhin, A. N. Pertsev, and I. V. Reznikov.* **1981, No. 1, 6 [12].**

Recording Short Light Pulses of Low Intensity with a Photomultiplier with a Capacitive Load. *G. D. Bogomolov, Yu. V. Dubrovskii, and A. A. Letunov.* **1978, No. 2, 501 [220].**

Optical Radiation Receiver for a Phase-Measuring System. *V. A. Druchevskii, V. V. Zubkov, A. A. Krasnov, N. V. Malysheva, I. N. Matveev, B. V. Poletaev, and N. D. Ustinov.* **1978, No. 5, 1373 [196].**

System for Protecting Photomultipliers against Optical Overloads. *B. G. Kozlov and V. N. Angarov.* **1978, No. 5, 1378 [200].**

Some Features of the Operation of Photoelectron Multipliers when Used to Register Laser Radiation. *V. M. Yasinskii.* **1978, No. 5, 1415 [234].**

Working Characteristics of F-7 Photocells. *L. N. Shcherbakov.* **1980, No. 5, 1305 [229].**

Photoemission Pyrometer. *K. N. Kasparov and A. I. Terpilovskii.* **1981, No. 1, 208 [198].**

Wide-Range Photoelectric Detector. *R. R. Agishev, G. I. Il'in, and A. N. Pikulev.* **1981, No. 4, 1036 [199].**

Photodetector with Stabilized Anode Stability. *G. D. Petrukhin and O. V. Fanasov.* **1984, No. 4, 981 [172].**

Sampled Photodetector. *A. V. Sinyavskii.* **1986, No. 2, 453 [172].**

General-Purpose Programmable Voltage Divider for Photomultipliers with Increased Load. *V. Ya. Zubchenok, A. A. Nakhan'kov, I. V. Reznikov, and E. D. Tverdokhlebov.* **1987, No. 2, 367 [112].**

Spectral Sensitivity of CsI-Photocathodes Applied to Microchannel Plates. *B. N. Bragin, I. M. Vesel'nitskii, E. S. Voskoboinikova, A. E. Melamid, and A. A. Akopyan.* **1987, No. 2, 429 [163].**

Wideband Photodetector based on Photomultiplier. *V. N. Klimov and V. A. Korol'kov.* **1988, No. 2, 503 [202].**

Improvement of Time and Performance Characteristics of Optical Detectors with Photomultipliers. *Yu. S. Denishchik and V. S. Essel'bakh.* **1989, No. 2, 453 [174].**

Feedthrough Detector Based on Planar Photocell. *V. V. Gorbunov, V. N. Korolev, L. S. Serdyukov, and V. M. Gorbachev.* **1989, No. 6, 1375 [126].**

Stripline Feedthrough Photocell. *A. G. Berkovskii, L. P. Bandurkina, V. M. Gorbachev, V. V. Gorbunov, V. N. Korolev, A. B. Kostin, and L. V. Serdyukov.* **1989, No. 6, 1377 [128].**

13.2.2. Electron-optical detectors

Transistor Generator of Square Pulses for Image-Converter Shutter Control. *S. V. Kusurgashev.* **1977, No. 1, 137 [124].**

Reducing Contrast Sensitivity of Vidicons for Short Pulse Exposures. *A. V. Petrakov.* **1977, No. 4, 1179 [236].**

Study of Dynamic Characteristics of UMI-93ShS Image Converter. *G. I. Bryukhnevich, N. S. Vorob'ev, Yu. N. Serdyuchenko, and M. Ya. Shchelev.* **1978, No. 1, 162 [156].**

Operation of Image Converter with a Ring Gate in One-Frame Mode with Nanosecond Exposures. *B. E. Dashevskii, Yu. N. Serdyuchenko, V. K. Chevokin, and M. Ya, Shchelev.* **1978, No. 1, 166 [159].**

Device for Measuring the Dynamic Range of Image Converters. *G. A. Chuiko and A. M. Yakobson.* **1978, No. 3, 777 [207].**

Photosensor with Logarithmic Transfer Characteristic. *V. P. Snykov and N. D. Tret'yakov.* **1978, No. 4, 1069 [206].**

Optoelectronic Unit for the Investigation of Pulsed Light Signals. *G. A. Aver'yanov, A. S. Voronov, and S. N. Chistyakov.* **1978, No. 4, 1080 [216].**

Recording of Weak Light Signals in the 1.0-1.2-μm Wavelength Band. *L. K. Vodop'yanov, L. V. Golubev, V. D. Kopanev, and V. G. Plotnichenko.* **1979, No. 5, 1397 [191].**

Dissector Follower System for Angular Fluctuation Measurement of an Optical Beam. *S. M. Slobodyar, V. N. Galakhov, and V. M. Sazanovich.* **1980, No. 4, 1010 [192].**

Optoelectronic Device for Study of Processes in the Nanosecond Range. *N. K. Kapishnikov, G. V. Lipov, and V. M. Muratov.* **1981, No. 2, 476 [178].**

High-Voltage Pulse Amplifier/Shaper for Controlling the Gate of an Electron-Optical Transducer. *V. I. Shamis, I. S. Serbin, V. V. Korneichuk, and I. S. Zadorozhnyi.* **1982, No. 3, 626 [107].**

Current Electron-Optical Apparatus Based on Time-Analyzing Electron-Optical Converters. *B. Z. Gorbenko and B. M. Stepanov.* **1982, No. 4, 985 [185].**

Lens System Used to Adjust the Illumination Intensity of the Photocathode of an Electron-Optical Converter in Time Analysis. *G. V. Kolesov, I. M. Korzhenevjch, V. B. Lebedev, B. M. Stepanov, and E. B. Sysoeva.* **1982, No. 5, 1300 [216].**

Synchronizing Circuit for the Agat Electron-Optical Camera for Recording Ultrashort Laser Pulses. *M. I. Demchuk, S. M. Dmitriev, V. P. Mikhailov, and P. V. Prokoshin.* **1984, No. 2, 505 [227].**

Using Avalanche Phototransistors to Synchronize Optoelectronic Cameras. *M. I. Demchuk, S. M. Dmitriev, V. P. Mikhailov, and K. V. Yumashev.* **1984, No. 5, 1228 [166].**

Image Converter Tube for Photography with Subnanosecond Frame Times. *T. S. V'yugina, V. M. Zhilkina, T. A. Il'ina, M. I. Krutik, V. B. Lebedev, V. P. Seleznev, B. M. Stepanov, V. N. Syrtsev, and G. G. Fel'dman.* **1985, No. 1, 162 [149].**

Avalanche-Transistor Bridge Scanning Circuit for Electron-Optical Camera with Picosecond Resolution. *A. K. Gilev, M. I. Demchuk, S. M. Dmitriev, V. B. Lebedev, V. P. Mikhailov, and A. P. Chernyavskii.* **1985, No. 6, 1341 [98].**

Operation of Photodiode Arrays with Image Converters. *G. I. Aponin, A. A. Besshaposhnikov, and D. M. Kulakov.* **1986, No. 3, 693 [173].**

Universal Picosecond-Range Time-Analyzing Image-Converter Tube. *G. G. Fel'dman, G. I. Bryukhnevich, V. M. Zhilkina, T. A. Il'ina, V. B. Lebedev, V. P. Simonov, and V. N. Syrtsev.* **1987, No. 3, 730 [205].**

Application of LI-702-4 Superkremnikon for High-Speed Computer Photography. *M. B. Alekseev, V. P. Artemov, and M. A. Zheleznova.* **1987, No. 3, 734 [208].**

Scanning Optical Microscope based on Cathode-Ray Tube with Single-Crystal Screen. *V. A. Denisyuk, E. V. Dorozhko, Yu. G. Dubov, S. O. Kopystyanskii, V. P. Martynova, V. V. Tsyganenko, and E. M. Shcherbak.* **1988, No. 3, 804 [238].**

"Kadr-S" Single-Frame Image-Conversion Camera. *V. V. Ludikov, A. M. Prokhorov, V. K. Chevokin, V. P. Beguchev, S. A. Botnev, and I. A. Fonareva.* **1990, No. 6, 1376 [136].**

Shaper of High-Voltage Pulses for Microchannel Plate of Image Intensifier. *N. P. Polyakov and V. A. Chikurov.* **1991, No. 2, 355 [115].**

Multiframe Photography with Biplanar Image Converter. *V. V. Ludikov, A. M. Prokhorov, and V. K. Chevokin.* **1991, No. 4, 890 [141].**

13.2.3. Semiconductor photodetectors

Cooled Photoresistance Based on Copper-Doped Electronic Germanium. *A. S. Kaminskii, Ya. E. Pokrovskii, and S. V. Poteshin.* **1977, No. 3, 876 [229].**

Double Phototransistor Sensitive to the Coordinate of a Light Spot. *G. A. Stepanova and R. Kh. Zakirov.* **1978, No. 4, 1108 [242].**

Photoelectric Converter. *V. I. Moshkin, Yu. V. Olenin, and O. G. Panchuk.* **1978, No. 5, 1376 [198].**

Photoreceiver with Noise-Level Stabilization at the Output. *S. E. Sebko.* **1979, No. 2, 550 [238].**

Multichannel Photodetector for Space–Time Recording of an Optical Signal. *I. A. Bubnov.* **1979, No. 3, 817 [189].**

Three-Channel Far Infrared Detector Based on Cooled Si:B, Ge:B, n-GaAs Photoresistors. *V. B. Lazarev and E. A. Tishchenko.* **1979, No. 4, 1121 [222].**

Extension of Dynamic Range of a Photoreceiver Based on a Photodiode. *V. A. Druchevskii, A. A. Krasnov, N. V. Malysheva, I. N. Matveev, and B. V. Poletaev.* **1980, No. 3, 758 [198].**

Photodetection Device with Enhanced Resistance to Background Illumination. *B. S. Nikonov, M. A. Trishenkov, and S. D. Okun'.* **1981, No. 1, 201 [191].**

Photodiode Laser Power Meter. *S. P. Kalashnikov and A. A. Matsveiko.* **1981, No. 2, 488 [189].**

Detection of Weak Optical Signals by Silicon Photodiodes. *V. D. Ryzhikov, P. E. Stadnik, and Yu. A. Yakovlev.* **1981, No. 5, 1278 [167].**

Registration of a Pulsed Laser Beam by a Matrix of Charge-Coupled Devices. *V. F. Volkov, A. K. Peshel', S. M. Slobodyan, and I. S. Tyryshkin.* **1981, No. 6, 1522 [176].**

A High-Speed Photoreceiver with a Field-Effect Transistor Photodetector. *D. F. Zaitsev, G. F. Zverev, V. A. Radchenko, and Ya. L. Khlyavich.* **1982, No. 1, 269 [235].**

Optoelectronic Image Converter Based on an Integrated Photodetection Matrix MF-6. *M. A. Gradshtein and V. M. Komarov.* **1982, No. 1, 271 [237].**

Characteristics of a Photodiode Matrix for Use with Weak Light Fluxes. *G. I. Aponin, A. A. Besshaposhnikov, V. B. Voronin, D. M. Kulakov, A. D. Petrova, and N. V. Simonova.* **1982, No. 4, 981 [182].**

Optical Signal Conversion by a Pulse-Time Method by Using Semiconductor Photoresistors. *G. S. Bondarev.* **1982, No. 4, 1008 [206].**

$GaAs_{1-x}P_x$ Photocells with Controlled Spectral Characteristics. *V. A. Gorokhov, Yu. L. Il'in, and V. A. Popov.* **1983, No. 1, 207 [169].**

Spectral Characteristics of KEDR-2 Photocells Made of Gold-Doped Germanium. *N. V. Zhimskaya, E. I. Fedorova, E. E. Starchaeva, and A. N. Perevozchikov.* **1983, No. 5, 1235 [208].**

Use of an Avalanche Photodiode for Reducing the Noise of a Magnetooptical Converter. *A. V. Bogolyubov, V. V. Panin, and B. M. Stepanov.* **1984, No. 1, 188 [172].**

Fast Large-Area Germanium Photodiode. *E. M. Verbitskaya, V. K. Eremin, N. B. Strokan, and D. V. Tarkhin.* **1984, No. 5, 1219 [158].**

Single-Line TV Spectrographic Attachment Based on a K1200TsL1 Charge-Coupled Device. *M. B. Alekseev, Sh. Kh. Adityarov, and V. A. Artemov.* **1985, No. 1, 173 [158].**

Investigation of a CCD Wave Front Sensor of an Adaptive Optics Radiation Focusing System. *V. A. Arutyunov and S. M. Slobodyan.* **1985, No. 1, 176 [160].**

Photodetector with Fiber-Optic Communications Line. *E. P. Bochkar', A. I. Zakharov, and A. P. Sokolov.* **1986, No. 6, 1446 [186].**

Automated Systems for Recording of Pulsed Light Images Using Charge-Coupled Devices. *V. I. Korzh, V. T. Subbotin, V. I. Chernikov, and V. M. Yushchenko.* **1987, No. 2, 373 [117].**

Gain Regulator for Avalanche Photodiode. *E. P. Bochkar', A. I. Zakharov, A. A. Titaev, and P. P. Shirokov.* **1987, No. 2, 391 [133].**

Receiver for Optical Transmission Line. *E. P. Bochkar'.* **1987, No. 4, 996 [214].**

Compensation for Photodetector Temperature Drift in Radiation-Power Regulation System. *V. N. Demkin and V. E. Privalov.* **1988, No. 1, 202 [174].**

Analytic Possibilities of Multichannel Detectors with Photoelectric Transducers Implemented by Charge-Coupled Devices. *A. A. Gol'din.* **1988, No. 3, 748 [190].**

System Based on Photodiode Array for Recording of Two-Dimensional Intensity Distribution of Optical Signal. *N. I. Vagin, F. P. Parshin, and V. V. Sorokovikov.* **1988, No. 4, 1009 [154].**

Single-Line Photodetector based on TS-26 Integrated Circuit. *A. Ya. Zhuk and A. V. Onufriev.* **1989, No. 1, 236 [207].**

Selection of Optimum Photoresistor Operating Conditions. *V. E. Kositsyn and A. V. Timashov.* **1989, No. 3, 683 [170].**

Shaper of Desired Signal of Optocoupler with Open Optical Channel. *Yu. A. Tuflin, A. I. Dobretsov, and V. V. Sasnovskii.* **1989, No. 3, 738 [217].**

Automatic System for Recording of Pulsed Optical Images based on MF-14 Photodiode Array. *V. N. Korolev, M. A. Ovchinnikov, V. I. Smerdov, and Yu. N. Yakovlev.* **1989, No. 5, 1086 [104].**

Practical Circuits for Wideband Photodetectors. *E. G. Volkov, V. A. Zhmud', Yu. P. Kononenko, and A. A. Stolpovskii.* **1990, No. 1, 183 [174].**

High-Speed Photodetector. *M. V. Komar and N. L. Lisovskii.* **1990, No. 5, 1220 [224].**

Effect of Temperature on Characteristics of Avalanche Photodetectors with Resistive Layer in Photon-Counting Mode. *S. S. Vetokhin, V. M. Golovin, V. B. Zalesskii, S. A. Malyshev, and S. A. Shunevich.* **1991, No. 1, 193 [186].**

Automated System for Measurement of Linear Dimensions of Small Objects Using CCD Photodetector. *V. A. Abazov, S. M. Rutkevich, V. V. Zolotushnikov, and Yu. L. Protsenko.* **1991, No. 1, 223 [212].**

Characteristics of Photodetector for Measurement of Energy Parameters of Infrared Radiation. *N. V. Zhimskaya, E. A. Fedorova, E. E. Gusyatnikova, A. N. Perevozchikov, and V. I. Shtepa.* **1991, No. 2, 405 [158].**

Position-Sensitive Photodetector. *A. V. Sinyavskii.* **1991, No. 5, 1186 [183].**

13.2.4. Thermal photodetectors, infrared detectors, radiometers

Infrared Radiometers with Light Guides (Survey). *E. S. Avdoshin.* **1988, No. 2, 261 [5].**

Thermostabilized Optical Head of an Infrared Radiometer. *G. A. Gumenyuk, N. I. Sivkov, and A. V. Shitik.* **1977, No. 4, 1181 [238].**

Gauges Consisting of Pyroelectric Radiation Receivers. *O. V. Elfimov, L. S. Kremenchugskii, and S. K. Sklyarenko.* **1978, No. 3, 781 [211].**

Determination of the Sensitivity Threshold of Thermal-Action Luminescent Screens Acted Upon by Continuous Infrared Radiation. *L. M. Zaitsev, L. Yu. Zysina, M. V. Senashenko, and E. I. Tsarapaeva.* **1978, No. 5, 1435 [253].**

Low-Temperature Radiometer with Conical Light Pipe. *E. S. Avdoshin and V. B. Nikulin.* **1979, No. 1, 259 [242].**

Infrared Radiation Detector. *V. A. Zakharenko and A. V. Shmoilov.* **1979, No. 3, 852 [220].**

Broad-Band Infrared Frequency Detector and Mixer Based on a Contact of Metal–Oxide–Metal Structure. *V. N. Chernyakov and V. I. Kukhtevich.* **1980, No. 2, 473 [166].**

Contrast-Frequency Characteristic of Luminescent Screens for Recording Infrared Radiation. *L. M. Klyukin, V. A. Namiot, and M. V. Senashenko.* **1981, No. 1, 212 [201].**

Subnanosecond Pyroelectric Infrared Detector. *V. P. Kuleshov and D. D. Malyuta.* **1981, No. 4, 1043 [205].**

Determination of the Threshold Sensitivity of Infrared-Radiation Detectors. *B. I. Ostrovskii, A. Z. Rabinovich, A. S. Sonin, and I. N. Shibaev.* **1983, No. 4, 945 [184].**

Analog Device for Measuring the Intensity of Weak Light Signals. *B. P. Klim, E. P. Pochapskii, and R. F. Fedoriv.* **1984, No. 3, 724 [183].**

Pyroelectric Detector Based on Strontium–Barium Niobate. *B. G. Salamov, A. G. Arushanov, and N. N. Lebedeva.* **1984, No. 6, 1514 [192].**

Wide-Band Pyroelectric Detector of Low-Power Radiation in the 10-20-μm Waveband. *A. O. Kulikov, V. K. Novik, A. I. Fedoseev, A. G. Shul'ga, and S. M. Shutov.* **1985, No. 1, 171 [155].**

Compact Pyroelectric Detector. *A. S. Elizarov, E. G. Kostin, Yu. A. Kulyupin, V. S. Lysenko, L. A. Matsuta, and O. P. Panasyuk.* **1985, No. 1, 243 [218].**

Photodetector with Thermoelectric Cooling for the 0.8-2.5-μm Band. *Yu. K. Bergner, S. L. Bondarenko, A. S. Miroshnichenko, R. V. Yudin, and N. Yu. Yutanov.* **1986, No. 4, 909 [142].**

High-Speed Uncooled Infrared Detector. *A. A. Benditskii.* **1986, No. 4, 956 [182].**

Infrared Detector with Frequency Output. *N. I. Ivanov and E. P. Maksimchuk.* **1986, No. 5, 1166 [164].**

A System for Input and Processing of Two-Channel Spectroradiometer Data Based on the Élektronika-60 Computer. *B. V. Vylegzhanin, A. P. Sapelov, O. A. Snetkova, and O. K. Taganov.* **1986, No. 6, 1310 [67].**

High-Speed Pyroelectric Detector. *E. N. Gergel', V. D. Divin, A. S. Elizarov, Yu. A. Kulyupin, and V. S. Lysenko.* **1987, No. 1, 194 [178].**

Thermoelectric Detector for Measurement of Ion and X-ray Energies of Laser Plasma. *V. M. Komarov, A. V. Hezenov, V. M. Migel', and N. V. Ponomareva.* **1987, No. 2, 487 [210].**

Device for Recording Particle and Photon Flux Distributions. *G. I. Shul'zhenko, A. A. Bashkeev, Yu. V. Kovalenko, and M. G. Fedotov.* **1987, No. 3, 685 [168].**

Liquid-Crystal Infrared Radiation Visualizer. *A. N. Gromov, G. M. Zharkova, and S. I. Trashkeev.* **1987, No. 3, 736 [210].**

Thermo- and Pyroelectric Detector for Measurement of Energy and Time Parameters of Pulse-Modulated Radiation. *O. A. Gerashchenko and V. L. Kremenchugskii.* **1987, No. 5, 1254 [209].**

Use of LPP-2 Pyroelectric Detector for Registration of Vacuum Ultraviolet Radiation. *R. A. Ganeev, V. V. Gorbushin, T. Usmanov, and S. T. Khudaiberganov.* **1988, No. 1, 250 [216].**

Wideband Pyroelectric Radiation Detector. *K. E. Lint.* **1988, No. 3, 741 [185].**

Photodetector for Measurement of Energy Parameters of Infrared Radiation. *N. V. Zhimskaya, E. E. Starchaeva, and E. I. Fedorova.* **1988, No. 4, 1049 [185].**

Calorimeters for Direct Measurement of the Energy of Divergent Laser Plasma. *V. M. Komarov.* **1989, No. 3, 686 [172].**

Threshold Sensitivity of Infrared Detector with Frequency Output and a Low Background Level. *N. I. Ivanov and I. I. Yurchenko.* **1989, No. 3, 736 [215].**

Fiber Infrared Radiometer. *E. S. Avdoshin.* **1989, No. 4, 947 [189].**

Surface-Acoustic-Wave Infrared Radiometer. *E. S. Avdoshin.* **1990, No. 1, 241 [221].**

Infrared Imaging System. *V. I. Balakshii, A. M. Bogomolov, A. V. Vinogradov, M. I. Zusman, and L. N. Magdich.* **1990, No. 2, 420 [167].**

Infrared Imager. *V. P. Beguchev, A. M. Mechetin, D. S. Sokolov, N. D. Chernenko, and N. A. Shakhraman'yan.* **1990, No. 6, 1385 [144].**

Linear Array of Pyroelectric Radiation Detectors. *V. N. Kramarenko, S. K. Sklyarenko, A. A. Strokach, and A. G. Chepilko.* **1991, No. 5, 1184 [181].**

13.2.5. Measurement of photodetector parameters

Apparatus to Measure Noise Power Spectrum Density of Photodetectors. *V. B. Piskunov, K. M. Kulikov, and V. I. Stafeev.* **1977, No. 1, 250 [218].**

Meter for the Frequency Characteristics of Photoreceivers, Based on a Two-Mode Gas Laser with Continuous Adjustment of the Intermode Distance. *S. A. Gonchukov, V. N. Petrovskii, and E. D. Protsenko.* **1978, No. 6, 1598 [128].**

Measurement of Infrared Heterodyne Photoreceiver Parameters. *P. V. Biryulin.* **1980, No. 3, 753 [193].**

Operating Modes of an Electrooptical Modulator in Investigations of the Frequency Characteristics of Photoreceivers. *P. V. Biryulin.* **1980, No. 3, 756 [196].**

Apparatus to Measure the Frequency Characteristics of Infrared Photodetectors in the 0.03-1-GHz Band. *P. V. Biryulin and M. I. Volobuev.* **1980, No. 4, 1004 [186].**

Frequency-Characteristic Meter for Optical Photodetector. *S. A. Gonchukov, E. P. Emets, R. B. Kasumova, and E. D. Protsenko.* **1980, No. 5, 1263 [194].**

Measurement of the Amplitude-Frequency Characteristics of Photodetectors by the Method of Optical Heterodyning in the Fast Frequency Scanning Mode. *G. N. Zmievskoi, E. V. Stepanov, and M. V. Sednev.* **1981, No. 1, 206 [196].**

Measurement of Electron Time-of-Flight in a Photoreceiver. *E. I. Asinovskii, V. V. Markovets, I. S. Samoilov, and A. M. Ul'yanov.* **1982, No. 1, 253 [222].**

Apparatus for Measurement of Amplitude-Frequency and Phase-Frequency Characteristics of Infrared Phototransducers in the 1 MHz to 1 GHz Frequency Range. *P. V. Biryulin and M. I. Volubuev.* **1982, No. 6, 1468 [138].**

Device to Measure Characteristic Time Constant of Phototransducer. *S. I. Aryshev, V. M. Zykov, V. N. Rudenko, and N. T. Yunda.* **1983, No. 6, 1429 [161].**

Sweep-Generator of Optical Signals for Rapid Measurement of the Frequency Characteristic of Photodetectors. *O. V. Bogdankevich, S. A. Darznek, P. A. Todua, and E. F. Shestakova.* **1984, No. 4, 960 [153].**

Device for Measuring the Frequency Characteristics of Photoelectric Transducers for the Infrared Range. *V. N. Petrovskii, A. N. Rurukin, and R. A. Shananin.* **1984, No. 5, 1263 [198].**

Application of Streamer Semiconductor Lasers to the Study of the Transient Characteristics of Pulsed Photocells. *V. A. Gavanin, V. A. Maksimov, A. Z. Obidin, A. N. Pechenov, Yu. M. Popov, and V. A. Frolov.* **1985, No. 1, 168 [153].**

Equipment for Measuring Time Constants of High-Speed Photodiodes. *P. I. Borisova Yu. V. Vorob'ev, N. Z. Derikot, V. N. Zakharchenko, É. A. Ismagilova, and V. V. Karpov.* **1985, No. 1, 248 [222].**

Apparatus for Study of Photoresponse of External Potential of Photosensitive Materials. *A. I. Plotnikov.* **1988, No. 1, 191 [165].**

13.2.6. Photon counting, photometers

Photon Count Circuit Using 521SA2 High Speed Comparator. *R. V. Orlov, U. V. Yanson, and Ya. Y. Veinald.* **1977, No. 4, 1056 [123].**

Two-Channel Ultraviolet Photometer. *M. Ya. Barkan and V. N. Karalis.* **1977, No. 5, 1424 [166].**

Direct-Reading Photometry System with Automatic Instability Correction. *M. P. Grishin, Sh. M. Kurbanov, and V. P. Markelov.* **1978, No. 1, 47 [48].**

Multichannel Photon Counting System for the Registration of Weak Spectra. *Yu. G. Vainer, L. P. Malyavkin, E. G. Sil'kis, and V. D. Titov.* **1981, No. 4, 1019 [183].**

A Digital Control Panel for Stellar Spectrophotometry by Photon Counting. *O. S. Maksumov.* **1983, No. 2, 423 [168].**

Noiseproof Photon Counter. *V. A. Brasletov.* **1983, No. 6, 1427 [159].**

Measurements of the Spectral and Polarizational Characteristics of the Luminescence in Fluorimeters Operated in the Photon-Counting Mode. *L. V. Levshin, A. V. Naumov, A. M. Saletskii, and V. I. Yuzhakov.* **1984, No. 4, 1033 [216].**

Optimization and Application of the Criterion for the Selection of Photodetectors for Photon Counting. *I. R. Gulakov, A. N. Pertsev, and S. V. Kholondyrev.* **1985, No. 1, 165 [151].**

High-Speed Precision Photometry System for Automatic Microdensitometer. *M. P. Grishin, Sh. M. Kurbanov, T. A. Svyatoslavskaya, N. L. Svyatoslavskii, and E. I. Chernov.* **1985, No. 6, 1412 [157].**

Minicomputer-Based Photon Correlator and Counter. *A. Sh. Gongadze and A. T. Mirzaev.* **1986, No. 3, 614 [98].**

Photon Counting by Avalanche Photodiodes. *I. R. Gulakov and S. A. Shunevich.* **1987, No. 4, 959 [183].**

Strobed Multichannel Photon Counter. *V. A. Ganichev, O. K. Elkin, I. N. Zaidel', V. A. Kozlov, G. M. Lyapunov, A. L. Malinovskii, E. A. Ryabov, and E. G. Sil'kis.* **1987, No. 5, 1186 [152].**

Multichannel Photon-Counting System with High Space Resolution. *T. V. Plakhotnik, A. M. Pyndyk, V. N. Krasheninnikov, and V. P. Vinogradov.* **1988, No. 1, 196 [169].**

Stabilization of Conversion Factor of Photon Counter. *A. S. Martynyuk.* **1988, No. 3, 744 [188].**

Sources of Systematic Error in Time-Correlated Single-Photon Technique. *A. V. Ostrovskii, A. V. Klimanov, V. S. Fokin, Yu. A. Kolchin, R. E. Garibov, V. A. Sharov, and M. B. Kadomtseva.* **1990, No. 4, 928 [190].**

Position-Sensitive Photodetectors for Photometry. *V. P. Novikov, E. V. Serga, and A. V. Kharlamov.* **1990, No. 5, 1179 [190].**

13.3. Optical instruments

Fiber-Optic Systems in Physics Experiments: Operating Principles and Components (Survey). *V. M. Vatutin and A. I. Vagin.* **1989, No. 1, 1 [7].**

Photoelectron Apparatus for Investigation of Angular Fluctuations of Optical Radiation. *S. E. Sebko, V. P. Klimashin, and I. N. Matveev.* **1977, No. 1, 238 [207].**

Optical Heterodyning in Ultrasonic Speed and Absorption Measurement. *B. A. Strukov, E. D. Yakushkin, K. A. Minaeva, and V. I. Teleshevskii.* **1978, No. 1, 204 [192].**

Three-Slit Optical Diverging System. *G. N. Buré, G. M. Efremov, V. V. Kupriyanov, and S. F. Palamarchuk.* **1978, No. 2, 493 [213].**

Optical Instrument for Measuring Pulsed Pressures. *A. A. Bakeev, I. V. Bykov, L. A. Vasil'ev, A. I. Fedosimov, and V. I. Yakovlev.* **1978, No. 2, 498 [218].**

Installation for Investigating Processes Occurring behind a Shock Wave Front on the Basis of Infrared Absorption. *I. V. Gerasimov, K. G. Tokhadze, and V. I. Tsybulya.* **1978, No. 3, 751 [184].**

Use of Interference Contrast Systems to Investigate Faint Radiation. *F. A. Korolev, A. Yu. Klement'eva, and D. G. Bakanov.* **1978, No. 3, 758 [190].**

Pulsed Optical Registration of Sound Fields. *Yu. E. Ryzhei, E. I. Kheifets, and E. L. Shenderov.* **1978, No. 4, 1077 [213].**

Production of Patterns with Submicron Elements with the Optical System of a Microscope. *A. S. Andreev, I. M. Kotelyanskii, E. N. Mirgorodskaya, and V. P. Orlov.* **1980, No. 1, 271 [260].**

Apparatus for Calorimetric Measurements of Energy Balance for Laser Radiation Interacting with Matter. *B. L. Vasin, N. N. Zorev, V. N. Radaev, A. A. Rupasov, G. V. Sklizkov, A. S. Shikanov, and L. I. Shishkina.* **1980, No. 2, 484 [176].**

Design of Optical Devices Using Multiply Reflected Light Fluxes. *M. E. Globus.* **1981, No. 1, 200 [190].**

Investigation of the Geometrical Characteristics of Total Internal Reflection Light Conductors. *I. A. Radkevich, A. V. Sin'govskii, and N. G. Tkach.* **1981, No. 5, 1286 [175].**

Device for Measuring Angular Fluctuations of Optical Radiation. *S. S. Gasparyan, R. G. Manucharyan, V. N. Narver, and V. R. Nikogosyan.* **1981, No. 6, 1496 [153].**

Digital Meter for Measurement of Star "Jitter". *A. A. Makarov.* **1983, No. 4, 909 [151].**

Device for Monitoring the Reference Signal in a Lidar. *K. D. Shelevoi.* **1984, No. 4, 977 [168].**

An Apparatus for Measuring Scattered-Light Parameters. *A. P. Klinko, L. D. Stepin, and A. V. Gapelyuk.* **1985, No. 2, 459 [180].**

Optical System for Shadow Diagnostics of Phase Objects with Self-Emission. *I. Ya. Korolev, T. P. Kosoburd, and Yu. M. Sorokin.* **1985, No. 4, 939 [186].**

Power Meter for Fiber-Optic Systems. *V. D. Nazarov, Yu. I. Sachko, and A. G. Tereshchenko.* **1986, No. 1, 193 [168].**

Operation of VSK-5 High-Speed Camera with IAB-451 Shadow-Indication Instrument. *Yu. L. Sharov, V. V. Golub, A. E. Kim, and A. M. Shul'meister.* **1986, No. 5, 1220 [212].**

Radius-of-Curvature Meter for Reflecting Surfaces. *A. N. Gromov and V. B. Shchulyat'ev.* **1987, No. 2, 489 [212].**

Immersion-Interference Method for Study of Piezooptic and Elastic Properties of Crystals. *N. A. Romanyuk and B. G. Mytsyk.* **1988, No. 1, 199 [171].**

Photoacoustic Microscope with Optical Scanning. *A. M. Ashurov, U. Madvaliev, V. V. Proklov, I. M. Beremzhanov, and A. A. Zhavoronkov.* **1988, No. 2, 439 [154].**

Analog Fiber-Optic Communication Line. *M. B. Alekseev.* **1989, No. 1, 218 [191].**

Automated System for Acquisition and Processing of Intensity-Modulated Signals from Fiber-Optic Sensors. *V. A. Vlasov, V. V. Moiseev, E. D. Mkhitaryan, and V. T. Potapov.* **1989, No. 3, 716 [197].**

Apparatus for Measurement of Focal-Spot Energy Distribution and Size in Short-Focus Optical Systems. *Yu. S. Airapetov, Yu. M. Blagidze, Sh. Sh. Gvatua, V. M. Zhdanova, S. A. Novikov, A. A. Todadze, and V. A. Khanevichev.* **1990, No. 2, 417 [165].**

Device for Television Tracking of Astronomical Objects. *P. P. Sukhov, V. V. Dragomiretskii, R. A. Chaichuk, N. R. Burlak, and L. V. Korneichuk.* **1990, No. 2, 427 [174].**

Fiber-Optic Displacement Sensor. *V. T. Novikov and V. N. Sorokovikov.* **1990, No. 2, 475 [216].**

Telescope System with Light Guide. *A. A. Eliseev, O. V. Ravodina, and Z. S. Teodorovich.* **1990, No. 3, 662 [165].**

Device for Registration of Time Position of Echo Signals for Optical-Bathymetry System. *E. V. Novikov, P. V. Pazhitnykh, V. I. Tret'yak, and V. A. Chudovskii.* **1990, No. 3, 664 [167].**

Vibration-Resistant Photoelectric Shadow-Indication Instrument with Linear Conversion Characteristic. *I. N. Volova, A. N. Korolev, and V. K. Fokin.* **1990, No. 5, 1 17 [187].**

Highly Sensitive Astronomical Television Apparatus. *S. O. Grabkin, V. I. Koroteev, and F. T. Mill'.* **1990, No. 6, 1424 [176].**

Automated System for Measurement of Linear Dimensions of Small Objects Using CCD Photodetector. *V. A. Abazov, S. M. Rutkevich, V. V. Zolotushnikov, and Yu. L. Protsenko.* **1991, No. 1, 223 [212].**

Interference Method for Determination of Masses of Gaseous Optical Heterogeneities. *L. S. Abrukova and V. S. Abrukov.* **1991, No. 4, 984 [221].**

Apparatus for Optical Studies of Heterophase States in Crystals. *A. T. Anistratov, S. B. Kruglyashov, L. A. Kovaleva, and A. B. Zybin.* **1991, No. 5, 1148 [150].**

13.3.1. Instruments using lasers

Laser Installation for the Investigation of Phototransformations of Substances in a Nanosecond Time Interval. *S. G. Kuz'min.* **1978, No. 6, 1592 [121].**

Meter for the Frequency Characteristics of Photoreceivers, Based on a Two-Mode Gas Laser with Continuous Adjustment of the Intermode Distance. *S. A. Gonchukov, V. N. Petrovskii, and E. D. Protsenko.* **1978, No. 6, 1598 [128].**

Stroboscopic Fluorimeter Based on an LGI-21 Pulsed Nitrogen Laser. *L. I. Korshunov, I. G. Batekha, V. F. Rachek, and V. D. Shatrov.* **1978, No. 6, 1660 [183].**

Laser Velocity Calibrator for a Nuclear Gamma-Resonance Spectrometer. *S. I. Reiman and K. P. Mitrofanov.* **1980, No. 2, 356 [66].**

Laser Ignition of the Water Discharger for the Twin Pulse-Forming Line of an Electron Accelerator. *B. A. Demidov, M. V. Ivkin, and V. A. Petrov.* **1980, No. 4, 904 [93].**

Time-Gain Control of Optical Receiver of Laser Rangefinder. *G. I. Il'in, A. N. Pikulev, and Yu. E. Pol'skii.* **1980, No. 5, 1268 [199].**

Laser Doppler Velocimeter Based on an Electron-Optical Converter and Photo-Multiplier. *G. I. Aponin, A. A. Beshaposhnikov, and O. B. Bragina.* **1980, No. 6, 1485 [156].**

Laboratory Setup for Designing a Laser Probe. *M. R. Merkin, V. A. Lavrenyuk, V. K. Kostin, and V. I. Yulish.* **1981, No. 1, 285 [268].**

Laser Doppler Rate Meter with an Electronic Signal-Recording System. *V. P. Ivanov, V. A. Blokhin, V. V. Babenko, and L. F. Kozlov.* **1981, No. 3, 770 [192].**

Precision Digital Infrared Phasemeter with Laser Emission Frequency Conversion. *V. A. Fedoseev, V. V. Kalendin, V. I. Kukhtevich, and V. Ya. Sup'yan.* **1981, No. 4, 1040 [203].**

High-Voltage Laser Spark Discharger. *P. I. Myshalov, B. A. Bushuk, S. A. Tikhomirov, and G. B. Tolstorozhev.* **1982, No. 2, 434 [142].**

Apparatus for Monopulse Ruby Laser Synchronization in Shock-Wave Investigations in Tubes. *V. M. Medvedev and V. D. Shevtsov.* **1982, No. 3, 706 [172].**

Simple Laser Light Source for Microscopes. *V. V. Kalinin and V. I. Solunskii.* **1982, No. 3, 774 [228].**

LAS-02 Laser Dispersed-Phase Photoelectric Analyzer. *Yu. V. Zhulanov, P. Yu. Makaveev, O. N. Nikitin, I. A. Nevskii, and V. V. Vetrov.* **1982, No. 6, 1478 [147].**

Metrological Features of a Laser Device with a Single-Mirror Deflecting Unit. *A. A. Ivanov, G. M. Maksimov, and Yu. S. Nechaev.* **1982, No. 6, 1482 [151].**

Laser Particle Counter. *Yu. V. Zhulanov, O. N. Nikitin, K. G. Saprykin, R. A. Nevskii, B. F. Sedovskii, and I. V. Petryanov.* **1983, No. 3, 686 [177].**

Automated Laser Photoacoustic Microspectrometer. *V. I. Alekhnovich, G. L. Komarov, A. R. Kukudzhanov, and V. B. Pyasetskii.* **1983, No. 5, 1195 [176].**

Triple-Frequency Highly Sensitive Laser Interferometer. *L. N. Pyatnitskii, S. L. Rak, V. A. Fon'kin, and G. G. Yakushev.* **1983, No. 5, 1202 [181].**

Intracavity Spectrometer for a Dye Laser. *S. P. Andreev, M. V. Belokon', V. N. Lopatko, I. M. Korda, A. E. Kravchenko, N. V. Mazaev, and A. N. Rubinov.* **1983, No. 6, 1416 [150].**

A Multicomponent Frequency-Shift Laser Doppler Velocimeter. *A. G. Gagarin and A. I. Mityushin.* **1984, No. 2, 440 [173].**

A Laser Level for Radio Telescope Surface Adjustment. *N. A. Esepkina, Yu. K. Zverev, S. A. Ioffe, A. P. Lavrov, P. A. Friedman, and O. V. Chukanov.* **1984, No. 2, 442 [175].**

Control Unit and ADC for Automated System of Laser Probing of the Atmosphere in the CAMAC Standard. *V. I. Kabelka, A. A. Milyauskas, and R. V. Moteyunas.* **1985, No. 1, 103 [103].**

A Submillimeter Laser Interferometer with Interference-Field Visualization. *A. A. Lash and D. N. Yundev.* **1985, No. 1, 179 [162].**

Transparent Laser Dischargers. *K. I. Kozlovskii, A. S. Tsybin, and A. E. Shikanov.* **1987, No. 2, 349 [98].**

Triggering of Spark Discharger by Ultraviolet Laser Radiation Transmitted through Light Guide. *E. V. Kumpyak, M. I. Lomaev, G. A. Mesyats, A. N. Panchenko, Yu. F. Potalitsyn, and V. F. Tarasenko.* **1987, No. 2, 439 [171].**

Automatic Laser Interference Refractometer for Studying the Dispersion of Gases. *Yu. V. Mishchenko.* **1987, No. 3, 689 [171].**

Dynamic Laser Interferometer for Study of Dynamics of Heating of Gas. *V. A. Andrianov, E. A. Andrushchak, A. V. Artamonov, V. B. Voronin, A. Yu. Voronin, I. N. Mazalov, S. V. Pashkin, A. V. Piskunov, V. P. Tychinskii, A. V. Rodin, V. N. Shulakov, and G. A. Khonyak.* **1987, No. 4, 941 [168].**

Laser Velocity Calibrator for Mössbauer Spectroscopy. *A. P. Amulyavichyus and R. I. Davidonis.* **1987, No. 4, 1000 [218].**

Teflon Films for Protection of Optical Systems in Laser Processing of Metals. *A. A. Nikitin, E. A. Mukomel, and E. V. Safonov.* **1987, No. 4, 1004 [221].**

Precision Laser Intraresonator Interferometer Spectrometer. *A. G. Zhiglinskii, I. V. Kuznetsov, M. V. Levin, and N. S. Ryaznov.* **1987, No. 6, 1453 [157].**

Laser Shadow Photography with Subnanosecond Resolution. *A. I. Zakharov and Ya. L. Kalaidzidis.* **1988, No. 3, 757 [198].**

ULSA-1 General-Purpose Laser Aerosol Spectrometer. *I. E. Nakhutin, Yu. G. Rubezhnyi, V. I. Kalechits, and I. P. Sipailo.* **1988, No. 6, 1537 [145].**

Optimization of Triggering of Laser Air Discharger. *K. I. Kozlovskii and I. V. Pishchulin.* **1989, No. 1, 138 [125].**

Single-Aspect Laser System for Shadow Photography of High-Speed Processes. *I. M. Gavrilov, V. R. Kukhta, V. V. Lopatin, and P. G. Petrov.* **1989, No. 1, 209 [184].**

Fast Adjustment of Resonator of LG-44 Laser used as Fabry-Perot Interferometer for Study of Solids. *A. B. Fedortsov and Yu. V. Churkin.* **1989, No. 1, 251 [220].**

Optothermal Laser Spectrometer. *S. T. Kornilov, I. V. Ostreikovskii, and E. D. Protsenko.* **1989, No. 3, 673 [162].**

Apparatus for Study of Resonance Fluorescence of Atoms with Laser Atomization of Material. *Yu. P. Gangrskii, S. G. Zemlyanoi, I. N. Izosimov, B. N. Markov, and Chan Kong Tam.* **1990, No. 1, 177 [168].**

13.3.2. Holography

Holographic Method of Measuring Phase Distortions of an Interference Pattern Owing to the Transient Nature of Laser Generation. *I. P. Nalimov and G. N. Kolobrodov.* **1977, No. 2, 542 [193].**

Maximum Number of Particles that Can Be Recorded by Holography. *A. P. D'yachkov.* **1977, No. 2, 546 [197].**

Use of Diffraction Gratings to Adjust Holographic Matched Filtration Systems. *O. G. Kartashov, L. F. Kupchenko, and T. G. Lishchina.* **1977, No. 4, 1169 [228].**

Combined Use of Two-Beam and Holographic Interferometers for Measuring Small Inhomogeneous Strains. *V. M. Varikash and A. K. Polonin.* **1977, No. 5, 1436 [176].**

Methods of Determining the Plane of Spatial Frequencies to Obtain Filter Holograms. *G. V. Kukarov, I. I. Mokhun', and V. T. Protasevich.* **1978, No. 4, 1085 [221].**

Use of Holographic Interferometry to Monitor the Optical Uniformity of Highly Refracting Transparent Materials. *V. A. Gavrilov, V. A. Kutvitskii, V. V. Mechev, V. E. Il'inykh, and V. P. Buzovkin.* **1981, No. 6, 1517 [171].**

Two-Shutter Controller for Investigation of the Kinetics of the Recording of Dynamic Holograms. *O. I. Oleinik and S. S. Slyusarenko.* **1983, No. 4, 948 [186].**

Holographic Microscopy in Reflected Light. *E. N. Lekhtsier and B. M. Stepanov.* **1983, No. 6, 1418 [152].**

Laser System for the Holographic Recording of Information from Track Detectors. *E. Bartke, I. Ts. Ivanov, and Ya. Éksnerova.* **1984, No. 4, 866 [76].**

Holographic Apparatus for Study of Two-Phase Flows. *V. P. Shorin, O. A. Zhuravlev, L. G. Logak, L. N. Medinskaya, and A. I. Fedosov.* **1985, No. 5, 1163 [158].**

Holographic Interferometer with 200-mm Working Field for Study of Phase Objects. *G. R. Toker.* **1990, No. 2, 414 [162].**

13.3.3. Luminous-flux-control devices

Laser Radiation Modulator Based on a Diffraction Grating. *B. M. Brzhozovskii, V. V. Bondarev, and A. A. Ignat'ev.* **1977, No. 4, 1177 [235].**

Means of Combining the Light of Several Lasers. *A. E. Pozdnyakov.* **1978, No. 3, 767 [198].**

Polarization Photoelastic Radiation Modulator with Wavelength 10.6 μm. *E. K. Galanov and G. N. Potikhonov.* **1980, No. 2, 470 [164].**

Liquid Crystal Device for Optical Radiation Control. *A. D. Azarov, S. S. Koval', A. V. Malkov, V. V. Mitrofanov, and M. B. Trapeznikov.* **1981, No. 2, 489 [190].**

Magnetooptical Polarization Modulator of Pulsed Laser Light. *A. A. Zhilenis and R. Yu. Krauyalis.* **1981, No. 4, 1028 [191].**

Shaper for Forming Pulses Used to Control an Electrooptical Shutter. *S. I. Romanov.* **1982, No. 4, 913 [120].**

Adjusting Laser Beams onto a Spherical Target in the "Del'fin-1" Unit. *N. G. Basov, H. Gunkel, A. E. Danilov, G. Dinnebier, I. V. Kirsanova, S. Kusch, V. Reinicke, R. Rieker, N. Russ, S. M. Savchenko, G. V. Sklizkov, S. I. Fedotov, H. Schinnagel, and K. Junge.* **1982, No. 5, 1227 [158].**

Automatic Adjustment of the Position of the Operating Point of an Electrooptical Modulator. *V. I. Grigor'evskii, B. L. Davydov, and A. N. Lomakin.* **1982, No. 5, 1231 [161].**

Controller for an Electrooptic Light Modulator. *B. M. Yurchikov and V. Ya. Goverdovskii.* **1983, No. 2, 389 [136].**

Pulse Shaper for an Electrooptic Modulator. *A. R. Krebs and A. G. Kuznetsov.* **1983, No. 3, 604 [104].**

Pulse Generator for a Solid-State Light Modulator. *V. P. D'yakonov and V. Yu. Smerdov.* **1983, No. 6, 1389 [125].**

Paratellurite Acoustooptical Deflector. *L. N. Asnis, A. A. Golovkov, and A. P. Osipov.* **1983, No. 6, 1431 [163].**

Electromechanical Laser-Beam Modulator with High-Frequency Stability. *S. B. Lysenko, V. S. Lysyuk, G. D. Mikhailyuk, V. D. Potapov, and V. V. Shcherbak.* **1986, No. 1, 197 [172].**

Shaper of High-Voltage Modulating Pulses of Complex Shape for Laser Control. *A. G. Akmanov, I. A. Smirnov, and A. G. Yamaletdinov.* **1986, No. 3, 646 [127].**

Electrooptic Modulator Implemented by Stripline Waveguide Resonators. *V. B. Volkonskii, V. V. Yakovlev, A. B. Ignatov, and I. M. Buzhinskaya.* **1988, No. 1, 204 [176].**

Control-Signal Generator for Acoustooptic Modulator. *A. V. Ermolovich and V. M. Kolomiets.* **1988, No. 2, 351 [81].**

Magnetooptic-Film Space-Time Light Modulator. *Yu. S. Plaksii.* **1988, No. 4, 896 [64].**

Control-Pulse Shaper for Electrooptic Modulator. *Yu. S. Denishchik and V. S. Essel'bakh.* **1988, No. 6, 1546 [154].**

Voltage-Pulse Generator for Control of Electrooptic Devices. *V. B. Gurskii, R. E. Pyatetskii, and A. V. Tikhonovich.* **1989, No. 2, 387 [118].**

Multichannel Light Modulator Based on Deformable Elastomer. *V. P. Azovtsev, O. V. Golosnoi, A. V. Shestakov, I. V. Gubanov, and A. V. Kostyuk.* **1989, No. 3, 679 [167].**

Optical Gate Based on Faraday Effect. *V. P. Avtonomov, V. V. Lisunov, A. A. Matsveiko, A. V. Orlov, I. E. Prokhorov, and A. M. Chekmarev.* **1989, No. 4, 944 [187].**

Device for Correction of Random Inclination of Wave Front of Received Optical Signal. *A. V. Koryabin, A. L. Kuz'minskii, L. A. Shenyavskii, and V. I. Shmal'gauzen.* **1989, No. 4, 960 [201].**

Superposition of Laser Spots in Pump-and-Probe Experiments. *A. F. Dite and A. I. Filin.* **1990, No. 1, 191 [180].**

Economical Two-Frequency Control Circuit for High-Speed Liquid-Crystal Electroopic Shutter. *E. V. Ivanov.* **1991, No. 2, 474 [216].**

Two-Coordinate Electrooptic Deflector with Cooled DKDP Crystals. *A. B. Van'kov, V. M. Volynkin, and A. A. Chertkov.* **1991, No. 3, 633 [143].**

Electrooptic Modulator for High-Power High-Frequency Periodically Pulsed and Quasicontinuous Lasers. *M. V. Bondarenko, A. I. Konoiko, P. N. Nazarenko, V. I. Polyakov, and A. A. Stavrov.* **1991, No. 5, 1161 [162].**

13.3.4. Measurement of optical properties

Determination of Radial Refractive Index Profile of Fiber Lightguides. *V. V. Grigor'yants, M. E. Zhabotinskii, G. A. Ivanov, A. V. Frantsesson, and S. V. Shreiber.* **1977, No. 2, 575 [222].**

Apparatus for Measuring Light Scattering in Aqueous Solutions at High Temperatures and Pressures. *S. I. Burkovskii.* **1977, No. 3, 832 [194].**

Measuring the Kerr Constant of Conducting Liquids. *V. A. Zamkov.* **1977, No. 4, 1182 [239].**

Apparatus for Determining Scattering Coefficient of Light in a Liquid by an Absolute Method. *N. B. Rozhdestvenskaya, E. N. Gorbacheva, and A. N. Ryabinin.* **1977, No. 4, 1184 [241].**

Installation for the Measurement of Scattering and Depolarization of Light by a Liquid. *E. Yu. Korableva and F. I. Panachev.* **1978, No. 4, 1088 [223].**

Apparatus for Optical Measurements under Conditions of Hydrostatic Pressure Up to 2 kbar at Temperatures ≤25°K. *I. I. Zasavitskii.* **1978, No. 5, 1368 [191].**

Device for the Measurement of the Kerr and Faraday Magnetooptical Effects. *M. A. Gurbanyazov, I. S. Lisker, S. F. Udal'tsova, and S. Ya. Yazliev.* **1979, No. 1, 262 [245].**

Method for Investigating the Color-Temperature Characteristics of Cholesteric Liquid Crystals. *L. M. Klyukin, M. M. Nezhevenko, A. S. Sonin, and I. N. Shibaev.* **1979, No. 2, 546 [234].**

Analysis of Diffuse Light Spectra with Microwave Thermophotoindicators Based on Cholesteric Liquid Crystals. *V. I. Maksimov and V. A. Chetkarev.* **1979, No. 3, 849 [218].**

Device for Measuring Transmission Coefficient of Objective Lenses. *A. K. Pavlyukov and G. R. Kholopov.* **1979, No. 4, 1138 [237].**

Transmission of Neutral Absorbers when Irradiated with Laser Radiation. *E. N. Anuchin and G. I. Kadaner.* **1979, No. 5, 1399 [193].**

Device for Measuring Optical Characteristics of Liquids at High Temperatures. *V. D. Golyshev, V. A. Petrov, and Yu. M. Putilin.* **1980, No. 5, 1303 [227].**

Setup for Measuring Optical Properties of Active Media during Pulsed Pumping. *V. A. Sterligov and V. B. Bortsov.* **1980, No. 6, 1476 [148].**

Measurement of Differences in Index of Refraction Using a Multibeam Interferometer. *V. V. Gorshkov, G. A. Grigor'ev, V. K. Klinkov, and M. A. Meretukov.* **1981, No. 2, 492 [192].**

Refractometric Method of Measuring Planar Waveguide Parameters. *V. E. Khomenko, A. A. Lipovskii, and N. A. Aleksandrov.* **1981, No. 3, 805 [224].**

Apparatus for Measuring Electrooptical Coefficients. *A. I. Rukovishnikov and N. A. Morozov.* **1981, No. 5, 1280 [170].**

Setup for Studying the Kerr Effect at Low Temperatures. *S. A. Tyurin, M. V. Khashchina, V. I. Matveev, and E. A. Kalinichenko.* **1981, No. 6, 1502 [158].**

Accurate Method of Measuring the Temperature Dependence of the Reflectance of Metal Mirror Surfaces. *V. P. Andronov, V. L. Okulov, and V. P. Savel'eva.* **1982, No. 6, 1470 [140].**

Shadow-Technique Setup for Studying Transparent Optical Inhomogeneities Subjected to Vibrations. *A. N. Korolev, B. V. Naumov, and I. N. Volova.* **1983, No. 1, 174 [145].**

Setup for Investigating Changes of the Coefficient of Refraction (Refractive Index) of Photodielectric Layers. *A. K. Gailis and A. D. Durandin.* **1983, No. 2, 434 [178].**

An Apparatus for Examining Adsorption on Solids from Ellipsometry and the Retarding Potential. *Yu. I. Asalkhanov, A. P. Kudryash, and D. D. Egorov.* **1984, No. 2, 420 [155].**

Method of Analyzing the Modal Composition of the Field of a Circular Optical Waveguide. *L. A. Bondarev, I. F. Budagyan, S. Golovchenko, V. F. Dubrovin, D. I. Mirovitskii, and A. F. Smyk.* **1984, No. 5, 1221 [160].**

Apparatus for Determination of Hot-Cathode Emissivity. *V. G. Zhupanov, V. I. Zavidei, A. N. Konotopov, V. V. Kuznetsov, A. V. Pustogarov, and O. A. Povalyaev.* **1986, No. 5, 1142 [144].**

Local Pulse Method for Study of Gas Flows by Rayleigh Light Scattering. *S. A. Novopashin, A. L. Perepelkin, and V. N. Yarygin.* **1986, No. 5, 1158 [158].**

Determination of Elastooptic Coefficients of Crystals by Optical Heterodyning. *B. A. Strukov and K. A. Minaeva.* **1986, No. 6, 1413 [157].**

Measurement of Refractive Indices of Liquid Crystals Using a Tunable Source of Coherent Infrared Radiation. *V. Ya. Zyryanov and V. Sh. Epshtein.* **1987, No. 2, 431 [164].**

IP-400 Meter for Weak Optical Absorption. *I. A. Kudryashov, I. E. Lifshits, G. G. Prave, V. S. Chudakov, and V. B. Nosov.* **1987, No. 4, 962 [185].**

Device for Measurement of Mode Phase Lags in Planar Optical Waveguides. *V. E. Strigalev, L. M. Shteingart, and V. M. Kul'benkov.* **1987, No. 6, 1462 [164].**

Measurement of Verdet Constant of Transparent Materials with Increased Accuracy. *V. V. Alekseev, Yu. B. Kudasov, and V. V. Shkarubskii.* **1988, No. 4, 1005 [151].**

Apparatus for Study of Refractive-Index Nonlinearity of Optical Materials with Picosecond Light Pulses. *N. R. Belashenkov, M. V. Inochkin, V. B. Karasev, and L. M. Studenikin.* **1990, No. 5, 1171 [183].**

Simple Method for the Study of Photoinduced Anisotropy and Photoinduced Gyrotropy. *V. K . Tikhomirov.* **1990, No. 5, 1193 [201].**

Measurement of Variance of Crystal Birefringence by means of Spectrophotometers. *N. R. Agamalyan and R. K. Ovsepyan.* **1990, No. 6, 1387 [145].**

Method for Measurement of Scintillator Transparency. *A. I. Peresypkin, R. V. Ponomarev, and V. I. Rykalin.* **1991, No. 3, 723 [225].**

Analog Recorder of Optical Reflection and Transmission at Laser Wavelengths. *P. T. Tereshchenko, O. A. Parkhomenko, and V. V. Onopko.* **1991, No. 3, 725 [226].**

Fast Measurement of Angular Dependence of Coefficient of Laser-Beam Reflection by a Fixed Specimen. *A. S. Ivanov, D. G. Letenko, I. A. Torchinskii, A. B. Fedortsov, and Yu. V. Churkin.* **1991, No. 4, 986 [222].**

Apparatus for Measurement of Radiation Losses and Backscattering in an Optical Resonator. *A. L. Bondarev, V. A. Zborovskii, I. N. Ivanova, V. P. Zhuk, D. V. Kazberuk, B. A. Taushan, and T. G. Ugryumova.* **1991, No. 5, 1151 [153].**

13.3.5. Measurement of polarization

Investigation of Induced Birefringence with a Rotating Polarization Element. *V. S. Chudakov.* **1977, No. 1, 241 [210].**

Automatic Ellipsometer with Linear Two-Coordinate Scanning. *G. I. Utkin.* **1977, No. 1, 244 [213].**

Measurement of Polarization of Short Light Pulses. *V. K. Kalevich, V. G. Fleisher, and V. D. Kul'kov.* **1978, No. 1, 199 [188].**

Magnetooptical Installation with a Digital Pulse-Amplitude Analyzer for Investigating Rapidly Occurring Processes. *G. S. Krinchik, V. B. Tsvetkov, and V. P. Zolotarev.* **1978, No. 3, 755 [188].**

High-Speed Scanning Polarimeter. *G. I. Utkin.* **1978, No. 6, 1607 [136].**

Influence of Optical Instruments on the Polarization of Light. *A. I. Vikhorev.* **1979, No. 1, 185 [175].**

Magnetic Dichrograph. *V. A. Figlovskii and Yu. A. Sharonov.* **1979, No. 4, 1118 [220].**

Magnetooptical Apparatus for Measuring the Faraday Effect and Susceptibility of Magnetic Thin Films. *V. A. Yatsenko and V. A. Bokov.* **1979, No. 4, 1127 [227].**

Laser Ellipsometer for the Investigation of Transient Processes. *D. I. Bilenko and B. A. Dvorkin.* **1980, No. 4, 1005 [188].**

Photoelectric Measurement of Birefringence in a Polarizing Microscope. *V. M. Lomako and I. D. Lomako.* **1980, No. 4, 1008 [190].**

High-Sensitivity Circular Polarization Analyzer. *V. D. Kul'kov and V. K. Kalevich.* **1980, No. 5, 1265 [196].**

Automatic Pulsed Digital Polarimeter for Laser Spectroscopy. *B. V. Zhdanov, N. I. Sheludev, A. I. Kovrigin, and D. V. Yakovlev.* **1981, No. 5, 1284 [173].**

Magnetooptical High-Vacuum Setup. *G. S. Krinchik and L. V. Nikitin.* **1981, No. 6, 1499 [155].**

Reflex Diffraction Grating – an Effective Transducer of Infrared Radiation Polarization. *A. N. Bobrovskii and G. D. Myl'nikov.* **1982, No. 6, 1466 [136].**

Spectropolarimeter with Electromechanical Compensation. *A. A. Leksikov, Yu. M. Fedorov, and A. E. Aksenov.* **1982, No. 6, 1522 [186].**

Method of Producing Polarizing Film Sheets for the Near Infrared. *N. K. Matveeva.* **1983, No. 1, 178 [148].**

A Magnetic Dichrograph with Double Light Modulation. *V. K. Klinkov, Yu. G. Nadtochii, and V. P. Nazarov.* **1983, No. 2, 430 [173].**

Interference Ellipsometer. *D. P. Pilipko and I. P. Pugach.* **1983, No. 4, 951 [188].**

System for Suppressing Interference, Drift, and Noise in Magnetooptical Apparatus. *V. N. Dudorov, M. V. Logunov, V. V. Randoshkin, and V. D. Chervenkov.* **1985, No. 1, 159 [146].**

Apparatus for Study of Double Refraction. *A. I. Rukovishnikov and N. A. Morozov.* **1985, No. 5, 1154 [151].**

Device for Control of Polarization Plane of Infrared Radiation. *S. V. Alekseev, V. I. Gorokhov, and A. S. Popov.* **1989, No. 1, 253 [221].**

Ellipsometric Method for Measurement of Reflection Matrix of Weakly Anisotropic Medium. *A. Yu. Tronin.* **1989, No. 6, 1372 [123].**

13.3.6. Measurement of luminescence and fluorescence

Determination of the Resolution of Luminescent Screens with Thermal Quenching. *M. Ya. Varshavskii, L. Yu. Zysina, V. M. Klyuchnikov, and E. I. Tsarapaeva.* **1977, No. 1, 248 [216].**

Apparatus for Examining the Emission Spectra of Gas Mixtures Produced by Alpha Particles. *V. S. Il'yashenko, A. I. Mis'kevich, and B. S. Salamakha.* **1978, No. 2, 506 [225].**

Installation for Studying the Luminescence of Microspecimens. *S. L. Votyakov, S. N. Volkov, A. A. Krasnobaev, V. Ya. Krokhalev, and M. V. Samatov.* **1979, No. 2, 544 [232].**

Setup of Excitation of Cathode Luminescence in Semiconductors. *N. I. Koren' and V. A. Ivanov.* **1981, No. 6, 1505 [161].**

Measurement of Degree of Luminescence Polarization by Successive Storage. *M. U. Belyi, B. A. Okhrimenko, and S. M. Yablochkov.* **1981, No. 6, 1507 [162].**

Correlation Method of Examining Weak Scintillations. *L. V. Viktorov, A. V. Kruzhalov, and B. V. Shul'gin.* **1982, No. 2, 468 [171].**

Instrument for Measuring the Integral Photoluminescence Yield. *A. N. Georgobiani, V. F. Tunitskaya, and N. V. Serdyuk.* **1983, No. 2, 439 [181].**

Absolute Calibration when Recording the Scattering of Light and Resonance Fluorescence. *S. G. Voropaev and B. A. Knyazev.* **1983, No. 5, 1199 [179].**

An Apparatus for Observing Electroluminescence in Concentrator Solar Batteries. *S. V. Sidorov, A. A. Blagosklonov, V. P. Avanesyan, and A. S. Darevskii.* **1985, No. 2, 470 [190].**

Selection of Reference Pulse in Analysis of Randomly Overlapping Photon Fluxes. *V. N. Denisenko, M. A. Ivanov, and I. P. Prokopovich.* **1987, No. 2, 325 [77].**

Light Filter for Spectroscopy of Spontaneous Combination Scattering and Luminescence. *A. A. Eliseev, O. V. Ravodina, G. B. Sukhanova, and Z. S. Teodorovich.* **1990, No. 5, 1222 [225].**

13.3.7. Parts of optical instruments

Sighting Devices for Producing a Color Image of a Transparent Inhomogeneous Medium. *G. D. Salamandra and N. M. Wentzel.* **1977, No. 1, 252 [220].**

Fiber-Optics Connectors. *B. V. Alyab'ev and A. B. Sergeev.* **1977, No. 2, 573 [221].**

Beam Splitter with 90° Phase Shift for Interference Displacement Measuring Instrument. *V. G. Vyskub, Yu. N. Isaev, V. L. Mamaev, L. A. Markova, B. S. Rozov, and P. I. Savostin.* **1977, No. 4, 1151 [210].**

Optoelectronic Switch. *V. P. Sharov, G. I. Iz'yurova, and E. M. Fadyukov.* **1978, No. 1, 238 [222].**

Device for Joining Cables of Optical Transmission Lines. *V. I. Mar'in and V. A. Moiseev.* **1978, No. 3, 797 [224].**

Measurement of the Thickness of Transparent Plates. *Yu. N. Popov.* **1978, No. 3, 811 [237].**

Automatic Rotary Diaphragm for Microphotometer. *V. K. Budilov, V. T. Volkov, Yu. A. Kuznetsov, and V. P. Sidorkin.* **1978, No. 5, 1380 [202].**

Optron-Type Readout Unit with Thyristor Level Shaper. *A. I. Platunin.* **1979, No. 1, 244 [228].**

Radiation Attenuator for the Wavelength Band 0.25-1 μm with an Attenuation Coefficient up to 10^5. *V. P. Mikheev, V. M. Ivanov, V. S. Balitskii, A. D. Zakirova, and A. N. Chuvyrov.* **1979, No. 1, 261 [244].**

Low-Temperature Blackbody. *A. K. Pavlyukov and G. K. Kholopov.* **1979, No. 3, 854 [222].**

Electromagnetic System to Control the Angular Position of Optical Elements of Lasers. *V. V. Zaika and S. V. Koval'chuk.* **1979, No. 4, 1130 [230].**

Snap Connector for a Monofiber Optical Cable. *I. A. Gavrilov, I. V. Knyazhechenko, V. A. Kuznetsov, V. P. Sosnin, and A. V. Frantsesson.* **1979, No. 4, 1184 [277].**

Method for Checking the Quality of Multicolor Frames. *N. M. Venttsel'.* **1979, No. 5, 1462 [248].**

Scanning Device for Optical Instruments. *T. E. Pisareva and V. N. Puchkov.* **1981, No. 1, 286 [269].**

Holographic Interferometric Monitoring of Polished Surface Planarity. *V. V. Mechev, V. A. Gavrilov, and L. Z. Suleimanova.* **1982, No. 3, 771 [225].**

Fabrication of Optical Cells by Bonding with Glass Solder. *A. A. Molchanov, Yu. N. Korotkevich, and O. D. Lebedev.* **1983, No. 1, 217 [176].**

Device for Fabricating Large Thin Spherical Mirrors. *T. I. Isaev and I. A. Radkevich.* **1983, No. 1, 218 [177].**

Detachable Connectors for Single-Strand and Multistrand Fiber-Optic Cable. *V. K. Dmitriev.* **1983, No. 1, 220 [178].**

Optical Window Based on Light Guides for a Pressure Chamber. *A. M. Shirokov and M. I. Eremets.* **1983, No. 5, 1232 [205].**

An Instrument for Checking the Diameters of Light Guides by Comparison with a Standard. *Yu. V. Zavitnevich, A. A. Kozlov, and S. D. Mirovitskaya.* **1984, No. 1, 234 [212].**

Collimators for the Vacuum Ultraviolet and Ultrasoft X-Ray Regions. *A. V. Mitrofanov.* **1984, No. 4, 966 [159].**

Attachment to Measuring Microscope for Preparing Planar Structures of Micron Size. *V. V. Petrov.* **1984, No. 6, 1505 [185].**

Attachment to Élektronika OT-6 Optical Tester for Measurement of Losses in Optical Fibers That Are Not in Connectors. *M. A. Maryukov, A. I. Zubkov, and E. A. Ivanova.* **1985, No. 5, 1229 [216].**

Mirror with Electrically Variable Radius of Curvature. *R. B. Dzhagupov and V. G. Panov.* **1986, No. 1, 248 [212].**

Welding of Fiber Light Guides. *E. S. Avdoshin and N. A. Kuznetsov.* **1986, No. 4, 957 [183].**

Compact Electromagnet for Optical Studies. *Yu. P. Sukhorukov, N. N. Loshkareva, and G. V. Pokazan'ev.* **1986, No. 5, 1224 [215].**

Focussing Mirrors Based on Fast-Setting Foam. *Yu. A. Budagov, A. B. Iordanov, L. B. Litov, Yu. N. Kharzheev, and R. V. Tsenov.* **1987, No. 3, 737 [211].**

Method for Determination of Magnification of Optical Systems. *N. S. Belova, S. B. Leonov, V. I. Melik-Gaikazyan, and I. Ya. Melik-Gaikazyan.* **1988, No. 1, 252 [218].**

Device for End Finishing of Polymer Optical Fibers. *M. A. Maryukov, E. A. Ivanova, and A. I. Zubkov.* **1989, No. 3, 740 [219].**

Attachment to G5 Goniometer for Measurement of Phase Lags of Modes of Planar Optical Waveguide. *L. M. Shteingart, M. P. Lyusikov, and V. P. Red'ko.* **1991, No. 1, 187 [182].**

Fresnel-Zone Plate for Laser-Plasma Imaging. *O. G. Belogurov, V. A. Venediktov, V. R. Kazakov, V. V. Kushin, V. K. Lyapidevskii, and V. B. Perezhogin.* **1991, No. 2, 401 [155].**

13.4. Optical spectral instruments

Multichannel Correlator for Optical-Mixing Spectroscopy. *Yu. F. Kiyachenko and I. K. Yudin.* **1978, No. 4, 1082 [218].**

Amplitude–Time Distortion in a Kinetic Spectrophotometer. *E. M. Shirshov.* **1980, No. 1, 218 [210].**

Film Light Filters for the UV Region. *A. L. Kudryavitskii, E. N. Bebyakina, G. P. Levina, and V. M. Klyuchnikov.* **1980, No. 2, 515 [203].**

Brightness Evaluation of an Object in the Infrared Range with an LED. *A. G. Kruusing, K. Ya. Rumma, and A. S. Bryukhanov.* **1981, No. 3, 797 [217].**

Self-Synchronized Operation of a Spectral Instrument and a Recording System. *I. N. Goncharuk.* **1982, No. 3, 767 [221].**

Analog-Digital Meter of Analytic Peak Intensity Ratio. *P. N. Zanadvorov and V. Ya. Shevchenko.* **1983, No. 2, 397 [144].**

The Use of Filters to Measure the Spectral Characteristics of Light Sources of Low Intensity. *B. A. Malakhov.* **1983, No. 2, 428 [172].**

Interface for the IKS-29 Spectrophotometer and KSVU-2 Computer System. *A. I. Gren', A. A. Kucher, and N. V. Vityuk.* **1984, No. 1, 97 [94].**

Spectral Properties of Varifocal Membrane Mirror. *V. V. Motoshkin and S. M. Slobodyan.* **1984, No. 4, 964 [156].**

Increasing the Accuracy of Recording of Differential Spectra by Means of Their Linear Combination. *V. A. Gorelik, O. D. Protopopov, and A. V. Yakovenko.* **1987, No. 4, 926 [155].**

Automatic Apparatus based on Acoustooptic Filter for Recognition of Surface Color Shade. *S. V. Bezdenezhnykh, Kh. V. Gazarov, V. N. Zhogun, N. S. Kostin, V. M. Latyshev, I. Yu. Skobelev, V. I. Pustovoit, A. Ya. Faenov, and V. N. Shekhovtsov.* **1987, No. 4, 937 [165].**

Use of Multichannel Spectrum Analyzer in Plasma Research. *V. A. Pis'menetskii, P. M. Podruzhnikov, V. V. Rozhdestvenskii, A. V. Sapozhnikov, and M. G. Shats.* **1988, No. 3, 728 [175].**

Instrument and Transfer Functions of Stock MDR Monochromators. *M. S. Arteev and S. S. Sulakshin.* **1988, No. 4, 1011 [156].**

Multichannel System for Registration of Plasma Optical Radiation with Real-Time Sensitivity Adjustment. *V. S. Belkin, V. G. Sokolov, and I. Ya. Timoshin.* **1989, No. 4, 950 [192].**

Light Filter for Spectroscopy of Spontaneous Combination Scattering and Luminescence. *A. A. Eliseev, O. V. Ravodina, G. B. Sukhanova, and Z. S. Teodorovich.* **1990, No. 5, 1222 [225].**

13.4.1. Interferometers

Interferometer with Improved Compensation for Phase Distortion in the Light Divider. *A. A. Balashov, V. S. Bukreev, V. A. Vagin, and G. N. Zhizhin.* **1977, No. 2, 539 [191].**

Method of Increasing Accuracy in Determining Position of Interference Fringes. *M. O. Chaika and Yu. G. Kozlov.* **1977, No. 2, 544 [195].**

HCN Laser in Three-Mirror Interferometer for IF Phase Measurements. *N. I. Malykh, A. G. Nagornyi, and E. S. Yampol'skii.* **1977, No. 3, 822 [186].**

Television Recording of Interference Images. *N. N. Bogdanov, O.I. Yagodkina, and T. M. Tarasova.* **1977, No. 5, 1472 [205].**

Measurement of the Dynamic Response of Materials to the Impact of a Pulsed Electron Beam by the Interferometric Method. *B. F. Gulin, Yu. I. Meshcheryakov, V. A. Morozov, and Yu. V. Sud'enkov.* **1978, No. 2, 495 [215].**

Technical Tolerances in the Fabrication of Oblique Selective Fabry-Perot Etalons. *N. A. Afonnikov, L. E. Grin', E. I. Kalkutina, V. V. Lebedeva, and A. E. Novik.* **1978, No. 3, 759 [192].**

Measurement of the Refractive Index of Solids with the Aid of a Modulation Fabry–Perot Interferometer. *A. L. Étsina.* **1979, No. 1, 182 [172].**

Spectrometer with a Two-Pass Fabry–Perot Interferometer and Photoelectric Digital Spectral Resolution. *S. V. Krivokhizha, O. A. Niyazov, and E. V. Shvets.* **1980, No. 6, 1463 [137].**

Measurement of Differences in Index of Refraction Using a Multibeam Interferometer. *V. V. Gorshkov, G. A. Grigor'ev, V. K. Klinkov, and M. A. Meretukov.* **1981, No. 2, 492 [192].**

Far-Infrared Michelson Interferometer with a Step Drive Operating on Line with a Computer. *E. A. Vitvinin, G. E. Ivannikova, F. F. Igoshin, A. P. Kir'yanov, and P. N. Novoselov.* **1981, No. 3, 764 [186].**

Stabilization of the Passband of a Fabry–Perot Interferometer Using Laser Radiation. *T. P. Mikhailova, L. A. Sakaeva, Yu. A. Fedorov, V. I. Bobrik, and A. K. Toropov.* **1981, No. 3, 766 [188].**

Small-Volume Differential Manometer for Ultrasonic Velocity and Absorption Measurements. *A. P. Sarvazyan and D. P. Kharakoz.* **1981, No. 3, 782 [203].**

Two-Channel Fiber Interferometer for Studying Nonreciprocity in a Single-Mode Fiber Light Guide. *E. N. Bazarov, V. G. Izraelyan, E. I. Sverchkov, and G. I. Telegin.* **1981, No. 6, 1513 [168].**

Separation of the Extrema of Interference Bands by Photographic Recording. *A. I. Kondrat'ev, M. F. Noskov, and V. F. Rakhmanov.* **1983, No. 2, 481 [218].**

Baseline Stabilization System for a Two-Frequency Interferometer. *P. A. Bagryanskii and V. S. Belkin.* **1984, No. 3, 719 [178].**

Fiber-Optics Ring Interferometer with an Automated Data-Acquisition and Processing System. *V. V. Ivanov, G. A. Ivanov, A. G. Novikov, Yu. E. Sverchkov, and G. I. Telegin.* **1984, No. 4, 971 [163].**

A Submillimeter Laser Interferometer with Interference-Field Visualization. *A. A. Lash and D. N. Yundev.* **1985, No. 1, 179 [162].**

Spectrometer with Spatial Resolution Based on a Fabry-Perot Interferometer. *A. V. Balebanov, G. S. Belen'kii, V. K. Zhivotov, I. A. Kalachev, and A. V. Cheremukhin.* **1985, No. 2, 457 [179].**

Optimization of Photographic Recording of Interference Patterns. *M. F. Noskov.* **1985, No. 5, 1226 [214].**

Determination and Automatic Control of Optical Thickness of Scanning Fabry-Perot Interferometer. *Yu. V. Evdokimov, L. L. Kravchinskii, and M. B. Shtenger.* **1985, No. 6, 1397 [144].**

Identification of Interference Bands by Cell-Wall Discontinuities. *N. M. Yashin.* **1986, No. 3, 695 [175].**

Bidirectional Counting of Interference Bands using one Photodetector. *S. N. Surov.* **1987, No. 4, 998 [217].**

System for Stabilization and Adjustment of Path Difference of Michelson Interferometer. *N. Yu. Boldyrev.* **1989, No. 5, 1200 [201].**

Operation of IZK-454 Interferometer with VFU-1 Photographic Recorder. *G. I. Gannochenko, V. G. Golubev, L. S. Ermolaev, N. A. Zadorozhnyi, V. E. Zubarev, G. V. Podguzov, and S. Yu. Tonchak.* **1989, No. 5, 1234 [230].**

Three-Channel Polarization Interferometer for Study of Spontaneous Magnetic Fields in Laser Plasma. *Z. Patron, T. Pisarczyk, A. A. Rupasov, G. S. Sarkisov, J. Farny, and A. S. Shikanov.* **1990, No. 1, 194 [183].**

Holographic Interferometer with 200-mm Working Field for Study of Phase Objects. *G. R. Toker.* **1990, No. 2, 414 [162].**

Photoelectronic Complex for Processing of Interference Patterns. *I. V. Dubrovskaya, V. Ya. Stenin, and A. V. Yakovlev.* **1990, No. 5, 1069 [92].**

13.4.2. Spectrometers

Two-Beam Recording Spectrophotometer with Compensated 100% Line. *N. G. Gerasimova, V. G. Bogdanov, and V. K. Nepoklonov.* **1977, No. 3, 825 [188].**

Method of Recording Profiles of Spectral Lines with High Time Resolution. *Yu. I. Chutov and V. A. Zhovtyanskii.* **1977, No. 4, 1166 [225].**

Registration of Absorption Spectra of Fused Salts with an SFD-2 Spectrophotometer. *M. V. Smirnov, A. V. Loshagin, and A. P. Khaimenov.* **1977, No. 4, 1208 [262].**

Device for Recording Differential Optical Spectra. *A. Kh. Rozhko, V. V. Sergienko, and A. G. Chmul'.* **1977, No. 5, 1427 [169].**

Automatic System for Examining Semiconductor Two-Photon Absorption Spectra. *V. I. Gavryushin, V. K. Narkyavichus, and R. A. Baltrameyunas.* **1978, No. 1, 197 [186].**

Standard Spectrophotometers in Examining Circular Dichroism for Scattering Objects. *Yu. N. Korolev, M. V. Gusev, and N. L. Telegin.* **1978, No. 2, 509 [228].**

Photoionization Radiation Spectrometer. *E. D. Mishchenko, A. M. Abdullaev, T. G. Kazachevskaya, and G. S. Kvater.* **1978, No. 4, 1059 [198].**

Influence of Polarization Properties of Spectral Apparatus on the Results of Spectral Measurements. *N. R. Senatorova.* **1978, No. 6, 1605 [134].**

Recording Diffuse Reflection Spectra with an SF-8 Spectrophotometer. *A. V. Nogin and Ya. É. Shmulyakovskii.* **1979, No. 2, 596 [278].**

Automatic Spectrophotometer with Punched Tape Output. *U. Kh. Nymm, L. O. Neiman, and A. K. Tiirik.* **1980, No. 5, 1257 [187].**

Automatic Plotting of Spectral-Line Contours. *A. P. Krumin', S. Ya. Liepa, and U. V. Yanson.* **1980, No. 5, 1260 [190].**

Modified VMR-2 Vacuum Monochromator for Synchrotron Radiation Experiments. *A. V. Kozhevnikov and N. A. Timchenko.* **1980, No. 6, 1466 [140].**

Vacuum Spectrophotometer with Recording in the Single-Pulse Mode. *N. G. Gerasimova and V. G. Bogdanov.* **1981, No. 1, 191 [182].**

Tuning and Control of Optical Mixing Spectroscopy Setups. *V. Kalechits, P. P. Poluektov, and Yu. G. Rubezhnyi.* **1981, No. 1, 193 [184].**

Operating Experience with Commercial VMS-1 Spectral Instrument and Its Modernization. *N. G. Gerasimova, and V. G. Bogdanov.* **1981, No. 1, 198 [188].**

Spectrophotometer for the 0.6-2.5-μm Region Based on a DMR-4 Monochromator. *O. E. Min'ko, A. N. Nabiev, and S. A. Nikiforov.* **1981, No. 4, 1026 [190].**

A Pulsed Polarized Raman Spectrometer with Digital and Analog Normalization. *S. M. Gladkov and N. I. Koroteev.* **1982, No. 3, 700 [167].**

An Automatic Spectrometer for Low-Temperature Measurements in the Range 0.8-45 μm. *A. A. Kopylov, S. P. Medvedev, and V. I. Smirnov.* **1983, No. 2, 421 [166].**

Apparatus for Measuring Magnetic Circular Dichroism Spectra. *Ya. É. Kariss, Yu. Ya. Ozols, A. K. Przhevuskii, L. A. Chugunov, and M. A. Élerts.* **1983, No. 2, 444 [186].**

Laser Optoacoustic Spectrometer. *E. P. Shliteris and V. A. Bugaev.* **1984, No. 2, 444 [176].**

Spectroellipsometer with Incidence-Angle Scanning. *P. I. Drozd, S. I. Zabelin, L. V. Poperenko, and I. A. Shaikevich.* **1984, No. 3, 722 [181].**

Multichannel Recorder for Two Optical Spectra. *G. V. Venkin, D. A. Esikov, D. I. Maleev, and G. M. Mikheev.* **1984, No. 6, 1468 [153].**

Spectrometer for Study of Photoconductivity of Semiconductor in Far Infrared Region Based on IKS-31. *B. A. Andreev, A. V. Ivashin, T. M. Lifshits, G. A. Maksimov, and V. B. Shmagin.* **1985, No. 4, 925 [173].**

Device for High-Speed Kinetic Infrared Spectroscopy. *Yu. V. Chugunov, A. A. Karelov, and A. V. Chugunov.* **1985, No. 4, 927 [175].**

Apparatus for Study of Diffuse-Reflection and Luminescence Spectra of Solids in Vacuum. *L. G. Kositsyn, M. M. Mikhailov, N. Ya. Kuznetsov, and M. I. Dvoretskii.* **1985, No. 4, 929 [176].**

Apparatus for Monitoring Optical Homogeneity of Transparent Materials and Scattering Defects Based on Molecular-Scattering Spectrometer. *A. D. Levin, R. K. Leonov, and I. S. Efimochkin.* **1985, No. 4, 933 [180].**

Sensitive Automatic Single-Beam Spectrophotometer for Measuring Small Optical Density. *A. I. Novichenkov and S. S. Tibilov.* **1986, No. 1, 190 [166].**

AIS-2 Automated Meter for Spectra Recorded on Photographic Plates. *G. I. Ramendik, A. Yu. Khromov, V. L. Volkov, and P. N. Astaf'ev.* **1986, No. 2, 463 [182].**

Allowance for Effect of Spectral Apparatus on Measurement of Stokes Parameters. *V. V. Guts, I. V. Malimon, and I. V. Solonchuk.* **1986, No. 5, 1163 [163].**

Laser Cross-Correlation Spectrometer Based on Kh6-4 Correlator. *S. M. Burkitbaev, V. M. Buyanov, Yu. F. Kiyachenko, E. A. Manykin, and N. Z. Sakipov.* **1986, No. 5, 1167 [165].**

Modernization of IKS-21 Spectrometer. *G. V. Pokazan'ev, N. N. Loshkareva, Yu. P. Sukhorukov, and A. I. Trofimov.* **1986, No. 5, 1212 [205].**

Modernization of SDL-2 Spectrometer. *A. N. Stepanov and V. V. Struzhkin.* **1987, No. 4, 930 [159].**

Optical Spectrometer for Electron-Probe Microanalyzer. *M. V. Zamoryanskaya, A. N. Zamoryanskii, and I. A. Vainshenker.* **1987, No. 4, 932 [161].**

High-Transmission Polychromator with Large Entrance-Slit Height. *V. D. Kotsubanov, I. K. Nikol'skii, and V. I. Kovalenko.* **1987, No. 4, 935 [163].**

Radiation-Recording System for High-Resolution Infrared Spectrometer. *N. I. Bagdanskis, V. L. Popkov, and A. P. Ryabov.* **1987, No. 5, 1173 [142].**

Apparatus for Measurement of Induced-Absorption Spectra. *M. U. Belyi, A. S. Kolesnik, B. A. Okhrimenko, and V. P. Yashchuk.* **1987, No. 5, 1177 [145].**

Modification of SF-8 Spectrophotometer. *Ya. E. Zarin'sh, Ya. E. Kariss, Yu. Ya. Ozols, L. A. Chugunov, and M. A. Elerts.* **1987, No. 5, 1251 [207].**

Automated Apparatus for Combination-Scattering Difference Spectroscopy. *L. P. Avakyants, I. A. Kitov, and A. V Chervyakov.* **1988, No. 2, 427 [145].**

Picosecond Absorption Spectrometer. *G. Yu. Senyushkin.* **1988, No. 2, 432 [149].**

Multichannel Microspectroscopy of Combination Scattering at High Pressure in Diamond Anvils. *O. V. Kholdeev, B. A. Fursenko, and I. A. Belitskii.* **1988, No. 3, 723 [172].**

Remotely Controlled Optical Echo Spectrometer. *I. S. Bikbov, I. I. Popov, and V. V. Samartsev.* **1988, No. 5, 1297 [172].**

ULSA-1 General-Purpose Laser Aerosol Spectrometer. *I. E. Nakhutin, Yu. G. Rubezhnyi, V. I. Kalechits, and I. P. Sipailo.* **1988, No. 6, 1537 [145].**

Automated Spectrograph for the Visible and Near-Infrared Regions. *A. A. Babin, A. V. Karov, and F. I. Fel'dshtein.* **1989, No. 3, 671 [160].**

Optothermal Laser Spectrometer. *S. T. Kornilov, I. V. Ostreikovskii, and E. D. Protsenko.* **1989, No. 3, 673 [162].**

Automated Spectrometer Based on LF1024-25/2 Photodetector and Élektronika D3-28 Microcomputer. *A. I. Ivanisik and V. I. Malyi.* **1989, No. 3, 675 [163].**

Modification of Infrared Spectrophotometer for Highly Scattering Solids. *V. P. Tolstoi.* **1989, No. 3, 734 [214].**

Modification of DFS-24 Spectrometer for Raman Scattering from Heated Specimens. *S. G. Poryvaev and E. N. Yurchenko.* **1989, No. 6, 1368 [121].**

Photoelectron Spectrometer for the Study of Relatively Nonvolatile Compounds. *V. I. Kleimenov, S. N. Lopatin, M. E. Akopyan, and A. Yu. Ustinov.* **1990, No. 2, 392 [143].**

Image Spectrum Analyzer and Its Use for Morphometry of Biological Microscope Slides. *V. N. Zhogun, A. V. Ivanov, L. N. Karimova, N. N. Petrovichev, V. I. Pustovoit, A. Yu. Faenov, V. V. Chvykov, V. L. Shabarov, and V. N. Shekhovtsov.* **1990, No. 2, 463 [205].**

Measurement of Variance of Crystal Birefringence by means of Spectrophotometers. *N. R. Agamalyan and R. K. Ovsepyan.* **1990, No. 6, 1387 [145].**

Coherent Anti-Stokes Raman Scattering Spectrometer for Pulsed Local Measurement of Gas Temperature. *V. V. Moiseenko, S. A. Novopashin, and A. B. Pakhtusov.* **1991, No. 5, 1136 [141].**

13.4.3. Fourier spectrometers

Fourier Spectrometer with a Movable Light Divider. *T. B. Ezhevskaya and A. F. Shipilov.* **1981, No. 6, 1511 [166].**

Spring-Loaded Parallelogram for the Scanning Mirror of a Low-Resolution Fourier Spectrometer. *A. I. Andreev, V. V. Arkhipov, and G. G. Gorbunov.* **1982, No. 6, 1524 [187].**

A Method of Producing Matched Optical Filters for Selected Frequencies of a Fourier Spectrum. *I. I. Mokhun' and V. I. Protasevich.* **1984, No. 1, 191 [175].**

Discrimination of Small Signal in Noise with Large Signal in Fourier Spectroscopy. *Yu. N. Lib and M. S. Zhukov.* **1985, No. 2, 428 [152].**

System for Bidirectional Counting of Interference Bands. *N. Yu. Boldyrev.* **1989, No. 2, 449 [171].**

Apparatus based on Fourier Spectrometer for Low-Temperature Studies of Highly Reflective Specimens in the Long-Wave Infrared Region. *N. Yu. Boldyrev, V. M. Burlakov, and S. V. Shul'ga.* **1989, No. 5, 1204 [204].**

Automated Fourier Spectrometer for Low-Temperature Measurements at 10-650 cm^{-1}. *V. A. Vasil'ev, P. E. Dyshlovenko, A. A. Kopylov, and A. N. Kholodilov.* **1990, No. 5, 1161 [174].**

Study of Supermolecular Structure by Optical Fourier Transforms of Scattered-Light Patterns. *V. A. Gudkov.* **1991, No. 4, 900 [148].**

13.4.4. Attachments to spectral instruments

Unit for Automatic Spectrometer Control in Discrete Recording of Spectra. *V. V. Kol'tsov and M. N. Ardasenov.* **1977, No. 2, 572 [220].**

Control Unit for Rapid-Scan Spectrometer. *Yu. P. Biryukov and O. D. Dmitrievskii.* **1977, No. 3, 793 [162].**

Wavelength Modulator for DFS-13 Spectrograph. *A. I. Malik and V. B. Baranyuk.* **1977, No. 3, 829 [192].**

Attachment for Recording Reflection Spectra with SF-8 Spectrophotometer. *A. A. Kukharskii.* **1977, No. 3, 830 [193].**

Heated Closed Quartz Cell for Spectroscopic Investigations of Vapors of Metals. *I. M. Beterov, A. A. Chernenko, and A. V. Shishaev.* **1977, No. 3, 888 [239].**

Photoelectronic Setting for Comparison of Lines on a Photographic Plate. *V. I. Kovalev and E. Ya. Kononov.* **1977, No. 3, 891 [241].**

Automated Comparator–Microphotometer. *V. I. Kovalev and É. Ya. Kononov.* **1977, No. 3, 895 [244].**

Unit to Record Kinetic Curves on Spectrophotometers SF-10 and SF-14. *R. M. Basaev, K. A. Chernyakovskaya, and F. P. Chernyakovskii.* **1977, No. 4, 1168 [227].**

Improving Illumination System of IKS-12 Infrared Spectrophotometer. *I. V. Krutetskii and A. B. Fedortsov.* **1977, No. 5, 1429 [171].**

High-Temperature Optical Cuvette. *S. P. Borodai, A. K. Mal'tseva, L. V. Nozik, A. G. Romashin, G. A. Smirnov, and G. V. Tkachenko.* **1977, No. 5, 1470 [203].**

Cuvette for Studying Optical Nonuniformities in Aggressive Liquids. *P. N. Lavrenko, O. V. Okatova, and K. S. Khokhlov.* **1977, No. 5, 1477 [208].**

Cell for the Investigation of Infrared Spectra. *S. I. Tatarinov, V. M. Bulanov, and A. G. Finkel'.* **1978, No. 4, 1131 [262].**

Amplifier for SF-4 and SF-4A Spectrophotometers. *L. A. Al'bota.* **1978, No. 5, 1414 [233].**

High-Temperature Cell and Heating Block for Spectrophotometric Research on Solutions in the Ultraviolet and Visible Parts of the Spectrum. *G. R. Kolonin and V. N. Kolevatov.* **1978, No. 5, 1433 [251].**

Scanning Attachment to Prism Monochromator. *V. P. Bludov.* **1979, No. 4, 1179 [272].**

Recording Optical Spectra in the Range 5000-10,000 cm^{-1} with the UR-20 Spectrophotometer. *A. A. Kukharskii, S. V. Ordin, and V. K. Zaitsev.* **1979, No. 5, 1459 [245].**

High-Temperature Attachment to the IKS-21 Spectrometer. *V. D. Golyshev, L. M. Lapo, V. A. Petrov, and Yu. M. Putilin.* **1979, No. 5, 1460 [246].**

Attachment to IKS-14A Spectrophotometer for Registration of Temperature Dependences of Transmission and Reflection Spectra. *I. V. Solov'ev.* **1980, No. 1, 267 [257].**

Infrared Flow Cell for Recording Spectra of Surface Compounds. *V. I. Likhtenshtein, V. K. Popov, and A. V. Dobrov.* **1980, No. 1, 269 [258].**

Digital Phase-Measuring System for Counting Integral Numbers and Fractions of Bands for a Homodyne Microinterferometer. *E. A. Andrushchak and V. P. Tychinskii.* **1980, No. 2, 476 [169].**

Device for Reversible Counting of Bands for a Homodyne Interferometer. *E. A. Andrushchak and V. P. Tychinskii.* **1980, No. 2, 481 [173].**

Cell for Infrared Spectroscopy of Molten Salts. *I. É. Veneraki, O. E. Khlebnikov, and V. I. Deshko.* **1980, No. 3, 809 [244].**

Spectrophotometer Attachment for Measuring the Reflection Coefficient of Mirror Surfaces. *M. T. Kostyshin, V. S. Kostko, and V. M. Kosarev.* **1980, No. 4, 1056 [235].**

Synchronizer for Discrete Recording of Spectra. *Yu. V. Ulashkevich and I. V. Tselinskii.* **1980, No. 5, 1261 [192].**

Electrodynamic Drive with Pneumatic Sliding Bearing for a Rapid-Scanning Fourier Spectrometer. *V. V. Arkhipov.* **1981, No. 1, 196 [186].**

Device for Stabilizing Rate of Rotation of a Motor in a High-Speed Photoregister. *S. P. Dashuk.* **1981, No. 1, 289 [271].**

Controlled Amplifier for a Modulation Spectrophotometer. *K. P. Kureichik.* **1981, No. 3, 761 [183].**

Photoelectric Transducers of Markers for Spectrophotometers. *G. B. Pukinskas.* **1981, No. 3, 804 [223].**

An Upgraded IKS-29 Infrared Spectrophotometer. *S. V. Tikhomirov.* **1982, No. 1, 252 [220].**

A Multiple-Reflection Attachment for the IKS-22 Spectrophotometer. *V. P. Tolstoi, G. N. Kuznetsova, M. I. Ivanova, and A. I. Somsikov.* **1982, No. 3, 765 [220].**

Scanning Mirror Device with Frequency Matching for the DFS-13 Spectrograph. *V. P. Novikov, V. S. Smirnov, and V. V. Eremenko.* **1982, No. 4, 1011 [209].**

Setup for Automatically Maintaining the Image of the Solar Chromosphere on the Slit of a Spectrograph. *L. A. Geondzhyan and E. V. Khutsishvili.* **1982, No. 5, 1302 [218].**

Recording Linear Dichroism Spectra with the Spectropol-1 Spectropolarimeter. *A. S. Prishchepov.* **1982, No. 6, 1464 [134].**

Kerr Cell for Temperatures of Tenths of a Degree. *G. G. Liid'ya, A. É. Lykhmus, and U. Kh. Nagel.* **1983, No. 1, 213 [173].**

A Normalizing Device for Modulation Spectroscopy. *L. M. Klinov, N. V. Dubinin, K. A. Kostylev, S. P. Kosarev, and S. G. Yudin.* **1983, No. 2, 425 [170].**

Cell in an Apparatus for Measuring the Dispersion Curves of the Refractive Indices of Single Crystals. *I. Ya. Kachkurova and E. F. Yamshchikov.* **1983, No. 3, 721 [208].**

Attachment to the IKS-29 Spectrophotometer. *S. M. Lovova, Yu. I. Uryvskii, A. N. Setov, and B. D. Popov.* **1983, No. 4, 982 [216].**

Extraction of Information from a DFS-24 Spectrometer to a Numerical Printer. *A. I. Gren', A. A. Kucher, and N. V. Vityuk.* **1983, No. 6, 1424 [157].**

An Automatic Control Unit for a DFS-24 Spectrometer. *Yu. S. Ponosov, Yu. P. Sukhorukov, and A. M. Ostern.* **1984, No. 1, 228 [207].**

A High-Temperature–High-Pressure Cell for Raman Spectroscopy. *Yu. E. Gorbatyi, G. V. Bondarenko, and I. V. Babashov.* **1984, No. 1, 229 [208].**

Velocity-Stabilization System for an Electrodynamic Interferometer Drive. *B. L. Bukovskii, Yu. M. Kaltygin, and V. A. Raikhert.* **1984, No. 3, 717 [176].**

Single-Line TV Spectrographic Attachment Based on a K1200TsL1 Charge-Coupled Device. *M. B. Alekseev, Sh. Kh. Adityarov, and V. A. Artemov.* **1985, No. 1, 173 [158].**

Spectrum-Discretizing Sensor for Specord-75IR Spectrophotometer. *A. M. Rzhevskii, D. K. Buslov, A. V. Il'yushonok, and N. I. Makarevich.* **1985, No. 3, 718 [195].**

Multiple-Reflection Cells for Luminescent Analysis. *N. L. Vekshin.* **1987, No. 1, 228 [208].**

Attachment to Single-Beam Spectrophotometer for Recording of Differential Reflection Spectra. *S. N. Gruzinov and V. P. Tolstoi.* **1987, No. 2, 485 [208].**

Optical Delay Line for Picosecond Spectroscopy. *S. A. Krysanov.* **1988, No. 2, 435 [151].**

Apparatus for Study of Dynamics of Macromolecules in Longitudinal Hydrodynamic Field. *A. A. Kholmuminov, Yu. V. Brestkin, S. A. Agranova, R. Ya. Rezler, V. G. Baranov, and S. Ya. Frenkel'.* **1988, No. 2, 468 [176].**

High-Pressure Optical Cell for Measurement of Infrared and Ultraviolet Spectra. *G. P. Shakhovskoi and A. N. Pankratov.* **1988, No. 5, 1345 [208].**

T-Shaped Leucosapphire Cell for Vapors of Alkali-Metal Atoms. *D. G. Sarkisyan and A. V. Melkonyan.* **1989, No. 2, 485 [202].**

Cell for Optical Studies of Relaxation Processes in Polymer Solutions. *L. N. Dymant, A. G. Rybakov, and A. N. Veselkov.* **1989, No. 3, 743 [222].**

Photometry System for Automatic Microdensitometer. *M. P. Grishin, Sh. M. Kurbanov, S. V. Pakhomov, T. A. Svyatoslavskaya, and N. L. Svyatoslavskii.* **1989, No. 4, 986 [224].**

Amplifier for Automated IKS-21 Spectrometer. *A. I. Trofimov and G. V. Pokazan'ev.* **1990, No. 2, 476 [217].**

Attachment to SF-18 Spectrophotometer for Measurement of Phase-Shift Dispersion. *B. Ya. Chikvaidze.* **1990, No. 4, 926 [189].**

Cell for Precision Optical Measurements in High-Purity Susbtances. *I. N. Meshcheryakov and V. V. Feklistov.* **1990, No. 4, 967 [222].**

High-Temperature Cell with Controlled Atmosphere for In Situ Studies by Combination Scattering. *S. G. Poryvaev.* **1991, No. 4, 979 [217].**

Cell for Study of Transmission Spectra of Thin-Film Liquid Specimens. *L. B. Boinovich.* **1991, No. 4, 982 [220].**

Use of Magnetic Modeling for Measurement of Space Distribution of Electrostatic-Field Strength. *S. V. Skachkov.* **1988, No. 1, 160 [139].**

14.1. Magnets and electromagnets

Time Required for Obtaining Stationary Magnetic Field Configuration in Apparatus for Magnetic Reversal. *V. V. Golubkov, O. S. Kolotov, T. Sh. Musaev, V. I. Petrov, and V. A. Pogozhev.* **1977, No. 1, 296 [256].**

Production of Stationary Strong Magnetic Fields Using Windings with Constant Current Density. *Yu. K. Katrukhin, N. G. Kocharov, and A. P. Doroshenko.* **1977, No. 2, 548 [199].**

Field Topography of a Powerful Electromagnet with Supersaturated Polepieces. *A. D. Skokov, Yu. I. Krasavin, and I. M. Puzei.* **1977, No. 3, 834 [195].**

Effect of Shape and Material of Pole Pieces on Field Uniformity in Magnets. *V. L. Vengrinovich, A. A. Lukhvich, S. A. Novikov, and A. A. Savitskii.* **1977, No. 4, 1187 [243].**

Optimum Dimensions of a Bitter Solenoid. *A. A. Udod.* **1978, No. 1, 181 [173].**

Glued Water-Cooled Windings. *Yu. K. Katrukhin, N. G. Kocharov, B. P. Khrustalev, C. E. Bazan, and K. A. Trojnar.* **1978, No. 5, 1363 [187].**

Calculation of Optimal Configuration of Shims for High-Resolution NMR Radiospectrometers. *A. A. Lukhvich and V. R. Churilo.* **1979, No. 3, 776 [150].**

Electromagnet for Fields up to 20 T. *K. Troinar, Ch. Bazan, and M. Glin'ski.* **1980, No. 2, 490 [181].**

Analytic Method for Calculating Parameters of Shims for Correcting Fields from Electromagnets. *A. E. Bol'shakov and L. L. Gol'din.* **1980, No. 3, 567 [30].**

Study of Magnetic Field of Four-Pole Magnet by the Finite Element Method. *G. I. Kotenko and V. A. Karkhin.* **1980, No. 3, 577 [39].**

Magnet for a Portable NMR Spectrometer. *B. E. Rytsar and P. M. Soprunyuk.* **1980, No. 5, 1285 [212].**

A Method of Calculating the Magnetic Field from the Configuration of the Poles of the Magnet and of Establishing the Field Configuration from the Results of Magnetic Measurements. *A. E. Bol'shakov and L. L. Gol'din.* **1982, No. 1, 219 [192].**

Generation of Intense Steady-State Magnetic Fields in Dissipative Solenoids. *A. A. Udod.* **1982, No. 5, 1236 [165].**

Production of a Magnetic Field in an Arbitrary Direction in a High-Pressure Chamber. *A. D. Prokhorov, V. V. Permyakov, G. N. Neilo, and I. G. Gavrish.* **1983, No. 3, 719 [206].**

Magnetic-Flux Concentrator of Oriented Dysprosium. *A. S. Bulatov, S. I. Goridov, and P. A. Kutsenko.* **1985, No. 6, 1416 [161].**

Strength of Cemented Multilayer Solenoid Windings. *Yu. K. Katrukhin, and A. P. Doroshenko.* **1985, No. 6, 1418 [162].**

Magnet for Mössbauer Spectrometer. *D. A. Khramov and A. V. Polosin.* **1986, No. 3, 753 [223].**

Quadrupole Lenses Based on High-Energy Radially Magnetized Magnets. *S. P. Kudryavtseva, A. I. Kudryavtsev, and Yu. A. Mel'nikov.* **1987, No. 3, 665 [151].**

Binding of Multilayer Solenoid Windings. *Yu. K. Katrukhin.* **1987, No. 5, 1206 [170].**

Sources of Polarizing Magnetic Fields and Their Gradients for NMR Tomography (Review). *A. A. Lukhvich and V. R. Churilo.* **1987, No. 5, 1208 [172].**

Quadrupole Magnetic System with Field Gradient of Up to 180 kOe/cm. *A. N. Grigorenko, O. A. Larin, S. A. Mishin, and E. G. Rudashevskii.* **1988, No. 1, 189 [163].**

Magnetic System of NMR Relaxometer with Field Cycling. *S. V. Dvinskikh, Yu. V. Molchanov, and S. R. Filippov.* **1988, No. 5, 1287 [165].**

Correction of Zonal Harmonics in Solenoids. *L. B. Luganskii.* **1989, No. 5, 1216 [214].**

Multilayer Windings for Water-Cooled Solenoids with Strong Magnetic Fields. *Yu. K. Katrukhin.* **1990, No. 2, 436 [182].**

Design of Thin Windings to Create Magnetic Fields of a Given Shape. *V. R. Portugal'skii.* **1991, No. 4, 915 [162].**

14.1.1. Superconducting magnets

Use of a Terbium Single Crystal to Concentrate Magnetic Flux in Superconducting Solenoids. *S. A. Nikitin, G. I. Kataev, V. P. Posyado, and G. E. Chuprikov.* **1977, No. 2, 550 [201].**

Optimizing Superconducting Helmholtz Coils Taking into Account Dependence of Critical Current on Induction. *D. Kabat and L. Cesnak.* **1977, No. 5, 1442 [180].**

Measuring Energy Losses in Superconducting Magnets. *V. G. Dubasov, V. V. Mymrikov, G. E. Sereda, and G. V. Trokhachev.* **1977, No. 5, 1445 [182].**

Investigation of Effect of Constructional Features of Superconducting Solenoids on Their Magnetic Parameters. *E. N. Lysenko.* **1978, No. 1, 175 [168].**

Optimization of a Superconducting Solenoid with Variable Current Density. *V. P. Buryak, V. I. Kurochkin, E, N. Malyshev, and G. M. Kravchenko.* **1978, No. 1, 179 [171].**

Production of a Strong Magnetic Field in a Small Volume with the Aid of Superconducting Solenoids. *V. V. Permyakov, I. G. Gavrish, and N. V. Taryanik.* **1978, No. 6, 1612 [140].**

Device for Protecting Superconducting Magnets with a Superconducting Connector. *D. Kabat, R. Lyudemann, Kh. Menke, and Yu. A. Shishov.* **1979, No. 5, 1404 [198].**

Apparatus for Measuring Losses in Combined Superconductors. *V. M. Drobin, E. I. D'yachkov, V. A. Malyuk, P. I. Nikitaev, R. Khertsog, F. Khovanets, I. S. Khukhareva, and L. Yanshak.* **1980, No. 3, 763 [203].**

Results of Tests of the "Giperon" Superconducting Magnet. *I. A. Vetlitskii, A. V. Belonogov, V. A. Glukhikh, N. I. Doinikov, V. M. Dobrov, E. I. Emel'yanov, V. L. Krylov, A. A. Lebedev, A. V. Lebedev, G. S. Lomkatsi, I. P. Marevichev, N. A. Monoszon, Yu. N. Ostroumov, Yu. I. Povarev, O. I. Pogorelko, L. I. Popkov, I. I. Sabanskii, G. V. Sidorovich, V. T. Smolyankin, D. D. Tokarev, V. D. Fedorov, I. V. Chuvilo, and G. F. Churakov.* **1980, No. 5, 1281 [209].**

Superconducting Multicore Cable Solenoid with a Superconducting Jumper. *V. D. Kuznetsov.* **1982, No. 2, 450 [156].**

A Computer Applied to Dynamic-Loss Measurement for a Superconducting Magnet. *F. Gemeri, A. N. Erokhin, S. Yu. Ershov, L. S. Shirshov, and G. Enderlein.* **1982, No. 3, 585 [70].**

80-kOe Superconducting Solenoid Operating in a Persistent-Current Mode. *E. K. Koshurnikov, V. I. Nizhankovskii, E. G. Nikolaev, S. N. Pylinina, and V. N. Shakhtarin.* **1982, No. 3, 720 [184].**

Superconducting Solenoid for an ESR Spectrometer. *V. I. Kurochkin, A. Ya. Laptienko, N. V. Taryanik, V. V. Sukhoi, and V. V. Shaparenko.* **1982, No. 6, 1485 [154].**

A Superconducting Magnet System for a 200-MHz High-Resolution Nuclear Magnetic Resonance Radio Spectrometer. *V. I. Kurochkin, A. Ya. Laptienko, N. V. Taryanik, V. V. Sukhoi, and V. A. Pokhilov.* **1983, No. 2, 440 [183].**

Apparatus for Superconductor Measurements in Alternating Magnetic Fields. *S. N. Ermolov and V. A. Marchenko.* **1985, No. 5, 1169 [164].**

Apparatus for Study of Magnetic-Flux Discontinuities in Ribbon Superconductors. *A. V. Andrianov, Yu. A. Bashkirov, and M. G. Kremlev.* **1986, No. 6, 1423 [166].**

Circulatory Superconducting Solenoid with Magnetic Field of 2.8 T. *L. B. Luganskii, I. B. Danilov, A. V. Dubrovin, V. I. Kirillov, and V. V. Travkin.* **1988, No. 5, 1279 [158].**

Device for Detection of Normal Phase in Superconducting Magnets. *A. N. Erokhin and M. V. Priima.* **1989, No. 6, 1389 [138].**

Superconducting Solenoid for Controlled Electron Transport to Detector with Increased Background Suppression. *V. I. Pelekhov, O. P. Anashkin, V. E. Keilin, V. P. Moryakov, M. I. Surin, and V. Kh. Shleifman.* **1990, No. 3, 675 [177].**

14.1.2. Pulse magnets

Shaping of a Flat-Top Magnetic-Field Pulse. *M. M. Karpenko and V. V. Khrustalev.* **1978, No. 6, 1614 [141].**

Solenoid for Generation of Initial Magnetic Flux in Implosion Generation of Superstrong Magnetic Fields. *A. I. Pavlovskii, N. P. Kolokol'chikov, M. I. Dolotenko, and A. I. Bykov.* **1979, No. 5, 1401 [195].**

Low-Inductance Charge Accumulator for Superstrong Magnetic Field Pulses. *Yu. N. Bocharov, S. L. Zaients, P. G. Popov, E. L. Litvinova, A. I. Kruchinin, G. S. Kuchinskii, and G. A. Shneerson.* **1981, No. 1, 175 [167].**

Tubular Superconductor Pulsed Dipole Magnet with Circulating Cryostatic System. *N. N. Agapov, E. I. D'yachkov, A. G. Zel'dovich, V. V. Krylov, V. N. Kuzichev, Yu. V. Kulikov, E. K. Kuryatnikov, L. G. Makarov, P. I. Nikitaev, N. M. Sazonov, A. A. Smirnov, V. V. Stekol'shchikov, and G. G. Khodzhibagiyan.* **1981, No. 2, 496 [196].**

Solenoid of Higher Reliability for Long Pulses of a 50 T Field. *A. S. Lagutin and V. I. Ozhogin.* **1981, No. 3, 773 [195].**

Thyristor Generators for Pulse Excitation of Electromagnets with Direct Supply from AC Line. *B. A. Baginskii and G. D. Braslavskii.* **1988, No. 3, 702 [156].**

Pulsed Magnet with Thyristor Switch in Supply Circuit for Electron-Beam Scanning. *S. S. Asina, K. A. Vinogradov, V. N. Dronin, and A. M. Surma.* **1989, No. 5, 1026 [53].**

Creation of Strong Pulsed Magnetic Fields in Chambers with High Hydrostatic Pressure. *A. F. Vul' and B. M. Todris.* **1989, No. 5, 1209 [208].**

Pulsed Solenoid for Modulation Spectroscopy of Solids. *D. A. Esikov.* **1989, No. 5, 1214 [212].**

Generator of Strong Periodic Magnetic-Field Pulses. *B. Z. Movshevich, E. A. Kopelovich, and Yu. A. Kuznetsov.* **1989, No. 6, 1380 [130].**

Pulsed Solenoid for Devices of Relativistic Microwave Electronics. *A. P. Arzin, V. V. Tsygankov, and Yu. G. Shtein.* **1989, No. 6, 1387 [136].**

Pulse Magnet with Plasma Crowbar. *B. B. Boiko, A. K. Soika, and L. P. Mit'kovskaya.* **1990, No. 2, 439 [184].**

14.1.3. Magnetic shields

Production of a Stable Magnetic Field of 1-10 μT. *A. N. Kozlov, Yu. V. Nikitenko, A. B. Roganov, and Yu. V. Taran.* **1981, No. 1, 223 [210].**

Superconducting Screen-Filters for Low- and Infralow-Frequency Magnetic Fields. *V. I. Sheremet, S. I. Bondarenko, and E. N. Til'chenko.* **1981, No. 1, 226 [213].**

Cylindrical Magnetic Screen. *Yu. K. Dolomanskii.* **1983, No. 3, 657 [151].**

Multilayer Cylindrical Magnetic Screens. *Yu. V. Taran.* **1984, No. 6, 1487 [170].**

Magnetic Shields of Amorphous Ferromagentics. *V. L. Vvedenskii, D. M. Martsishevskii, L. M. Suslov, and A. M. Shubina.* **1990, No. 2, 478 [219].**

14.2. Magnetometers

Automated System of Measuring Magnetic Field of an Isochronous Cyclotron. *Yu. P. Buzulukov, N. I. Venikov, A. A. Vinogradov, I. V. Naumov, V. V. Paramonov, E. M. Khodakov, I. M. Shapkin, and V. E. Yarosh.* **1977, No. 3, 638 [28].**

Improving Accuracy of Pulse Magnetometer Measurements. *V. M. Lachinov and V. K. Makoveev.* **1977, No. 5, 1403 [149].**

Automatic Magnetometer. *I. M. Batyaev.* **1978, No. 3, 724 [160].**

Measurement of the Spatial Distribution of the Induction of a Nonsteady Magnetic Field. *V. Yu. Dubrovin and A. F. Kivshik.* **1978, No. 3, 747 [180].**

Measurement of Field Nonuniformities in the Gap of Precision Magnets. *A. A. Savitskii and I. I. Nedbal'skii.* **1979, No. 5, 1410 [203].**

Detectors for Simultaneous Magnetic Field and Temperature Measurement. *I. A. Bol'shakova, S. S. Varshava, T. A. Moskovets, and V. F. Chekurin.* **1980, No. 2, 526 [212].**

Electronic Probe Method of Investigating Magnetic Fields. *É. I. Rau, G. V. Spivak, and V. V. Tekin.* **1980, No. 4, 996 [180].**

Multipole Magnetic Standard for Calibrating Harmonic Induction Magnetic Field Probes. *M. A. Voevodin, A. D. Kovalenko, N. A. Korukov, and Yu. I. Tikhomirov.* **1981, No. 1, 228 [215].**

Vibration Magnetometer with a Balancing Circuit for the Coils and Frequency Doubling. *L. K. Panina.* **1981, No. 1, 231 [218].**

Upgrading of the Sh1-1 Magnetic-Induction Meter. *A. Ya. Laptienko, A. A. Glushchenko, N. N. Karagai, and V. V. Permyakov.* **1981, No. 1, 234 [220].**

Microthermostat for a Hall Detector. *M. Yu. Belyaev and E. Yu. Medvedev.* **1981, No. 3, 821 [238].**

Thermal Stabilizer for a Hall Detector. *I. Z. Rutkovskii, G. G. Fedoruk, and A. S. Yakubov.* **1981, No. 3, 822 [239].**

Attachment to the Shl-1 Magnetic-Induction Meter for Displaying the Result in Magnetic-Induction Units. *V. I. Barchuk.* **1982, No. 4, 996 [195].**

Multichannel Automated System for Measuring the Nonuniformity Index of the Magnetic Field of a Synchrophasotron. *M. A. Voevodin, V. I. Volkov, L. P. Zinov'ev, A. D. Kovalenko, N. A. Korukov, I. I. Kulikov, Yu. I. Romanov, Sh. Z. Saifulin, and Yu. I. Tikhomirov.* **1983, No. 3, 559 [61].**

Electroacoustic Magnetometer. *V. D. Volovik, S. I. Ivanov, and G. V. Tsepilov.* **1983, No. 4, 955 [192].**

Harmonic Spectrum Analyzer of Magnetic Induction. *A. F. Baidak, A. A. Mikhailichenko, and V. P. Smirnov.* **1984, No. 4, 1002 [190].**

High-Temperature Magnetometer with Vibration Platform. *B. P. Shurukhin, V. N. Kuznetsov, V. E. Makhotkin, and A. G. Bulushev.* **1986, No. 1, 243 [209].**

Instrument for Measurement of Direction of Magnetic Lines of Force. *V. S. Belkin, B. P. Sannikov, V. G. Sokolov, and I. Ya. Timoshin.* **1986, No. 5, 1180 [177].**

Data-Processing and Control System Based on Élektronika D3-28 Microcomputer for Vibrating-Reed Magnetometer. *M. B. Dorofeeva, V. V. Chernobrovkin, V. V. Petrov, and Yu. G. Chukalkin.* **1987, No. 2, 295 [50].**

Measurement of the Intensity of a Pulsed Magnetic Field in Magnetizing Devices. *O. S. Kolotov, T. Sh. Musaev, and V. A. Pogozhev.* **1987, No. 3, 670 [155].**

Device for Measurement of Magnetic-Field Distribution of Siluet Accelerator. *E. A. Zyat'kov, V. N. Kazakov, V. G. Kolesnik, V. M. Lanskov, and A. Sh. Khamidov.* **1987, No. 4, 773 [23].**

Radio-Frequency Magnetooptic Micromagnetometer. *V. E. Zubov, G. S. Krinchik, and A. D. Kudakov.* **1988, No. 3, 766 [206].**

Reed-Relay Magnetometer. *V. I. Datskov, V. M. Drobin, and P. Lobotka.* **1988, No. 5, 1291 [168].**

Synchronous Detector for Ferroprobes with Unipolar Pulse Excitation. *V. V. Yakovenko, A. V. Loiko, L. V. Donskaya, and V. Ya. Gal'chenko.* **1989, No. 6, 1349 [104].**

Direct Observation of Magnetic-Flux Nonuniformities near High-Temperature Superconductors. *A. I. Belyaeva, S. V. Voitsenya, V. A. Sirenko, and V. P. Yur'ev.* **1990, No. 6, 1392 [150].**

Light-Guide Magnetooptical Sensor for Study of Pulsed Magnetic Fields. *A. B. Semenov, A. N. Rodionov, V. V. Kutsaenko, V. M. Vatutin, V. K. Gorchakov, and V. T. Potapov.* **1991, No. 1, 209 [201].**

14.2.1. Resonance magnetometers

Nuclear-Magnetic-Resonance Magnetic-Induction Meter for Calibrating Solenoids Having a Nonuniform Field. *E. N. Lysenko.* **1977, No. 1, 254 [222].**

Measurement of the Amplitude of an Alternating Magnetic Field by Means of Electron Paramagnetic Resonance. *M. M. Tel'minov, É. É. Perepechai, and M. K. Zvezdin.* **1979, No. 1, 141 [133].**

Large-Scale Automation of a Nuclear Magnetic Resonance Magnetometer. *E. V. Dvornikov.* **1979, No. 2, 504 [195].**

Polarizer for Magnetizing Liquid in NMR Resonance Devices. *A. P. Ezyukov and A. I. Zhernovoi.* **1979, No. 2, 508 [199].**

Automatic Measurement Using Resonance of the Magnetic Induction of Fields of Superconducting Solenoids. *E. P. Sapunov, A. I. Okhrimenko, I. A. Kulik, and V. I. Kurochkin.* **1979, No. 2, 511 [202].**

Generator for Calibrating Superconducting Solenoids by the Nuclear Magnetic Resonance Method. *O. A. Voronov and V. G. Filippov.* **1980, No. 5, 1225 [157].**

Superregenerative Magnetic-Field Sensor Controlled by Nuclear Magnetic-Resonance Signal. *A. A. Savitskii and I. I. Nedbal'skii.* **1981, No. 3, 776 [197].**

Tracking Nuclear Magnetic Resonance Magnetometer with Digital Readout in Gauss. *A. E. Pryakhin.* **1981, No. 6, 1467 [127].**

Finding the Distribution of Magnetic Fields by Means of Photoinduced Chemical Polarization of Nuclei. *S. D. Varlamov, Yu. S. Konstantinov, and A. M. Smirnov.* **1982, No. 3, 717 [181].**

Highly Accurate Nuclear-Precession Magnetometer. *L. L. Dekabrun, Yu. N. Kil'yanov, and D. A. Moskalev.* **1983, No. 3, 654 [149].**

Nuclear Magnetic Resonance Servo Magnetometer with an Automatic Search Device. *A. E. Pryakhin.* **1983, No. 4, 907 [150].**

Absorption Chamber for Akali-Helium Magnetometer. *E. V. Blinov, S. P. Dmitriev, and P. P. Kuleshov.* **1985, No. 3, 725 [201].**

Improvement of NMR Sensor for Cryomagnets. *M. A. Fedotov.* **1986, No. 3, 754 [224].**

Device for Determination of Constant of Superconducting Solenoids by Nuclear Induction. *V. M. Teplinskii.* **1986, No. 6, 1430 [172].**

Magnetooptic Micromagnetometer with Electronic Sampling of Magnetooptic Signal. *V. E. Zubov, G. S. Krinchik, A. D. Kudakov, and S. N. Kuz'menko.* **1989, No. 4, 963 [204].**

14.2.2. Superconducting quantum magnetometers

Superconducting Quantum Magnetic Fluxmeter with Expanded Passband. *Ya. I. Gitarts and N. V. Zavaritskii.* **1979, No. 2, 565 [251].**

Quantum Magnetometer with Superconducting Transformer of Sensitivity 1 nMx. *I. N. Khlyustikov and M. S. Khaikin.* **1980, No. 2, 493 [184].**

An Optimized Superconducting Quantum Interferometer with Radiofrequency Bias in the 25–30-MHz Range. *V. K. Ignat'ev and I. Ya. Krasnopolin.* **1982, No. 1, 225 [198].**

Quantum Magnetometer for Measuring Magnetic Susceptibility. *V. D. Kuznetsov and N. I. Alekseev.* **1982, No. 2, 462 [166].**

Adjustment of Point Contact of SQUID Fluxmeter. *V. N. Polushkin.* **1984, No. 2, 507 [229].**

Superconducting Quantum Magnetometer for the Range 1-200°K. *I. N. Khlyustikov.* **1984, No. 6, 1484 [167].**

Three-Component Superconductor Magnetometer. *V. A. Lisitsyn, S. V. Motorin, B. M. Rogachevskii, and G. A. Syretskii.* **1985, No. 3, 683 [165].**

Automated Magnetometer with Superconducting Solenoid. *A. D. Balaev, Yu. V. Boyarshinov, M. M. Karpenko, and B. P. Khrustalev.* **1985, No. 3, 685 [167].**

Quantum Magnetometer for Measuring Magnetic Susceptibility Over Wide Ranges of Temperatures and Fields. *V. D. Kuznetsov.* **1985, No. 4, 952 [196].**

Recording Unit of Squid-Based Magnetometer. *V. M. Drobin, P. Lobotka, and V. N. Trofimov.* **1987, No. 3, 673 [158].**

Radio-Frequency Amplifier for SQUID Magnetometer. *V. N. Polushkin and S. V. Uchaikin.* **1989, No. 1, 220 [193].**

Highly Stable Wideband Magnetometer based on dc SQUID with End Josephson Junctions. *A. N. Matlashov, Yu. E. Zhuravlev, V. V. Masalov, and A. L. Gudkov.* **1989, No. 2, 446 [168].**

Magnetometer Based on Single-Inductor High-Temperature SQUID. *B. V. Vasil'ev and V. N. Polushkin.* **1990, No. 3, 681 [182].**

Portable Quantum Magnetometer with Wide Operating-Temperature Range. *Yu. V. Obukhov, B. I. Savel'ev, and V. V. Khanin.* **1991, No. 5, 1166 [166].**

14.2.3. Hall sensors and galvanomagnetic sensors

Multichannel Magnetometer Using Galvanomagneto-Recombination Converters. *M. A. Voevodin, L. P. Zinov'ev, A. D. Kovalenko, N. A. Korukov, Yu. I. Romanov, Sh. Z. Saifulin, and Yu. I. Tikhomirov.* **1978, No. 6, 1615 [143].**

Galvanomagnetic Three-Component Magnetic Induction Gauze. *S. A. Dolgii, A. A. Kukushkin, Yu. V. Kulikov, G. P. Nikolaevskii, V. T. Parshutov, and M. I. Yatsuta.* **1979, No. 5, 1407 [200].**

Hall Magnetometers for Stationary Magnetic Fields that Read in Field Units. *V. M. Lachinov, V. K. Makoveev, and A. M. Starikov.* **1980, No. 6, 1460 [135].**

Ring Galvanomagnetic Transducers of Small Magnetic Inductions. *I. P. Anan'ev.* **1982, No. 1, 215 [190].**

Hall Magnetometer with Increased Resolving Power. *L. N. Akhmanova, V. M. Lachinov, V. K. Makoveev, and A. M. Starikov.* **1983, No. 6, 1433 [165].**

Magnetic Field Sensors Using Field-Effect Transistors. *V. V. Alekseev and I. M. Vikulin.* **1984, No. 2, 455 [185].**

Noise-Resistant Hall Magnetometer. *A. I. Ivanenko and K. Shpiring.* **1987, No. 3, 728 [203].**

Magnetic Diode for Measurement of Magnetic-Field Strength. *S. I. Fedotov and V. M. Zalkind.* **1987, No. 4, 928 [157].**

Signal Recorder for Automated Pulse Apparatus for Hall-Effect Measurements. *I. L. Zaitsevskii, V. A. Idomskii, and B. I. Khizhnyak.* **1988, No. 3, 768 [208].**

14.3. Magnetic-field stabilization

Magnetic-Flux Stabilizer. *E. V. Kiyanovskii and A. F. Varenik.* **1979, No. 1, 147 [139].**

Field Stabilizer for Permanent Magnet of Nuclear Magnetic Resonance Spectrometer. *G. V. Ivanov, D. I. Vainshtein, A. Safin, and V. D. Shchepkin.* **1982, No. 4, 967 [168].**

Radiospectrometer Electromagnet Field Stabilizer. *E. Yu. Medvedev, P. M. Shenderov, and A. M. Ostern.* **1983, No. 3, 631 [128].**

Regulated Current Supply for Superconducting Solenoids. *I. M. Grodnenskii, Kh. R. Ozmanyan, and A. V. Shemet.* **1984, No. 5, 1201 [142].**

Pulse Magnetic-Induction Regulator. *B. N. Vainman and A. P. Kuprin.* **1985, No. 5, 1167 [162].**

Simple, Economical Field Regulator for Electromagnet. *O. S. Vas'kov, D. S. Domanevskii, Yu. V. Zinkevich, E. V. Soroka, and N. N. Shavel'.* **1988, No. 6, 1519 [131].**

14.4. Magnetic and magnetooptical measurements

Apparatus for Displaying Dynamic Magnetization Curves on an Oscilloscope. *A. V. Fedotov.* **1978, No. 1, 184 [175].**

Method of Measuring Barkhausen Noise. *V. M. Vasil'ev.* **1978, No. 1, 188 [179].**

Low-Temperature Magnetometer for the Measurement of the Magnetic Moment of Metallic Whisker Single Crystals. *V. M. Pudalov and S. G. Semenchinskii.* **1978, No. 4, 1065 [203].**

Measurement of the Angle of Inclination of the Easy Magnetization Axis in Garnet Films. *V. A. Yatsenko, V. A. Bokov, and M. V. Bystrov.* **1978, No. 6, 1618 [146].**

Measurement of the Velocity of Motion of Domain Boundaries by a Magnetooptical Method. *M. V. Chetkin, A. N. Shalygin, and A. De la Kampa.* **1980, No. 1, 215 [207].**

Magnetooptical Study of Submicron Magnetic Domains at Low Temperatures. *A. I. Belyaeva, A. V. Antonov, G. S. Egiazaryan, V. A. Potakova, and V. I. Silaev.* **1980, No. 2, 522 [209].**

Apparatus for Low-Temperature Spectral Investigations in Strong Pulsed Magnetic Fields. *B. M. Kharlamov, N. I. Ulitskii, A. M. Pyndyk, V. B. Podobedov, and R. I. Personov.* **1981, No. 1, 215 [204].**

Equipment for Measuring Magnetization in Intense Pulsed Magnetic Fields. *S. Yusilchik and S. Kubiak.* **1981, No. 1, 220 [207].**

Low-Temperature Autodyne for NMR Magnetic Field Measurements. *Yu. V. Zakharov, I. N. Kvitko, and V. I. Raitsis.* **1981, No. 2, 448 [151].**

Determination of the Size of a Circular Bloch Line in Permalloy Thin Films. *Ya. M. Pogosyan, M. A. Chalabyan, Z. M. Gzryan, and A. M. Petrosyan.* **1982, No. 2, 476 [178].**

Measurement of Magnetic Susceptibility of Dielectrics Using an FET Transistor-Based Cryogenic Generator. *S. A. Bogoslovskii and V. I. Sokolov.* **1982, No. 2, 502 [200].**

Apparatus for Measuring Magnetic Circular Dichroism Spectra. *Ya. É. Kariss, Yu. Ya. Ozols, A. K. Przhevuskii, L. A. Chugunov, and M. A. Élerts.* **1983, No. 2, 444 [186].**

A Specimen Holder with Two Degrees of Freedom for Magnetooptics Research. *V. I. Gostishchev, A. A. Drozd, and V. R. Sobol'.* **1983, No. 2, 478 [216].**

Apparatus for Measuring the Magnetocaloric Effect In Metal Specimens in Pulsed Fields up to 8 T. *B. K. Ponomarev.* **1983, No. 3, 659 [153].**

Magnetooptical Apparatus for Recording the Hysteresis Loop of Epitaxial Films of Rare-Earth Ferrite Garnets. *Yu. A. Sluzhbin and G. F. Temerti.* **1983, No. 3, 662 [156].**

Method of Observing Barkhausen Shocks by Means of Sound Radiation. *O. A. Bartenev, V. A. Khamitov, and E. S. Gorkunov.* **1984, No. 1, 205 [187].**

High-Speed Photographic Method of Studying the Dynamics of Domain Boundaries. *M. V. Chetkin, S. N. Gadetskii, A. P. Kuz'menko, and V. N. Filatov.* **1984, No. 3, 740 [196].**

Magnetooptical Television Apparatus for Studying Domain Structure of Magnetic Materials. *G. G. Shakaryan and G. A. Vermishyan.* **1984, No. 5, 1215 [155].**

Magnetooptical Apparatus with Rotary Polaroid. *V. N. Grishanov.* **1984, No. 5, 1219 [157].**

Measurement of Magnetic Elliptical Dichroism. *A. A. Mil'ner.* **1986, No. 1, 207 [180].**

Magnetooptical Apparatus for Study of Transitions in Transparent Magnetic Materials. *O. S. Kolotov, V. A. Pogozhev, and R. V. Telesnin.* **1986, No. 1, 210 [182].**

Laboratory Magnetometer Bench. *E. B. Aleksandrov, M. V. Balabas, V. A. Bonch-Bruevich, S. V. Provotorov, and N. N. Yakobson.* **1986, No. 1, 241 [207].**

Apparatus for Recording Ferromagnetic-Paramagentic Transitions at Pressures to 30 GPa. *V. G. Tissen, E. G. Ponyatovskii, V. M. Kulakov, F. I. Lobanov, and V. K. Shigin.* **1986, No. 5, 1178 [175].**

Heat-Flow Sensor for Study of Magnetic Phase Transitions in Adsorbates. *V. D. Borman, A. P. Tarakanov, and V. I. Troyan.* **1986, No. 5, 1183 [179].**

Bridge for ac Measurement of Magnetic Susceptibility. *S. V. Cherepov.* **1986, No. 5, 1226 [217].**

Apparatus for Study of Dynamics of Cylindrical Magnetic Domains by Means of Rotary Gradient Magnetic Field. *F. G. Bar'yakhtar, V. D. Stasovskii, and V. A. Khokhlov.* **1986, No. 6, 1420 [163].**

Automatic Balance for High-Temperature Measurement of Magnetic Susceptibility. *S. V. Konovalov, V. V. Singer, I. Z. Radovskii, and V. A. Klepinin.* **1987, No. 3, 678 [162].**

Magnetooptic Study of Domain-Boundary Oscillations in the Frequency Range of 400 kHz to 400 MHz. *A. F. Aleinikov and E. G. Rudashevskii.* **1988, No. 4, 1002 [149].**

Apparatus for Study of Weakly Magnetic Materials. *N. V. Kazakov and A. S. Sonin.* **1990, No. 1, 202 [190].**

Simple Method for Measurement of Magnetic Susceptibility of Paramagnetic Materials. *A. V. Protchenko and M. N. Bochkarev.* **1990, No. 1, 206 [194].**

Magnetizing Device for the Study of Transients in Transparent Magnetic Materials. *D. I. Iorgov, O. S. Kolotov, and V. A. Pogozhev.* **1990, No. 4, 970 [225].**

Observation of Acoustomagnetic Interactions in Easy-Plane Transparent Magnetics. *M. V. Chetkin, V. V. Lykov, Yu. N. Kurbatova, and A. A. Makovozova.* **1990, No. 6, 1395 [152].**

Apparatus for Express Measurements of Magnetic Susceptibility in Temperature Range of 1.4-300 K. *A. P. Dodokin, D. D. Perlov, and A. A. Sorokin.* **1991, No. 1, 233 [221].**

Experimental Apparatus for Study of Domain-Boundary Dynamics by Inelastic Light Scattering. *S. O. Demokritov, A. I. Kirilyuk, N. M. Kreines, and V. I. Kudinov.* **1991, No. 3, 628 [139].**

15. MECHANICAL INSTRUMENTS

15.1. Instruments for study of mechanical properties

15.1.1. Deformation tests of solids

Apparatus for Applying a Strong Uniaxial Compression to Single-Crystal Samples at Low Temperatures. *N. B. Brandt, V. F. Keptya, V. A. Kul'bachinskii, and N. Ya. Minina.* **1977, No. 2, 555 [205].**

Combined Use of Two-Beam and Holographic Interferometers for Measuring Small Inhomogeneous Strains. *V. M. Varikash and A. K. Polonin.* **1977, No. 5, 1436 [176].**

Calibration of Devices Producing Anisotropic Strain. *M. P. Volotskoi.* **1978, No. 1, 193 [183].**

Installation for the Measurement of the Shear Stress of Solids at Low Temperatures and High Pressures. *A. A. Zharov, Z. G. Makarova, G. P. Shakhovskoi, and V. M. Zhulin.* **1979, No. 1, 266 [248].**

Method for Achieving Large Monoaxial Dilations of Single Crystals. *N. B. Brandt, V. A. Kul'bachinskii, N. Ya. Minina, and V. D. Shirokikh.* **1979, No. 6, 1630 [137].**

Instrument for Static and Dynamic Loading of Specimens. *V. P. Savchin and I. M. Spitkovskii.* **1980, No. 5, 1292 [218].**

Device for Producing Uniaxial Deformation in the Surface Layer of Crystals. *A. M. Saitsev, V. D. Kopanev, and A. A. Gippius.* **1982, No. 4, 1029 [226].**

Two-Range Semiconductor Tensoresistive Force Transducer. *G. D. Ushakov and V. V. Golod.* **1983, No. 2, 450 [191].**

Immersion-Interference Method for Study of Piezooptic and Elastic Properties of Crystals. *N. A. Romanyuk and B. G. Mytsyk.* **1988, No. 1, 199 [171].**

Apparatus for Study of Deformation at Temperatures to 0.4 K. *I. N. Kuz'menko, V. V. Pustovalov, and S. E. Shumilin.* **1988, No. 1, 227 [196].**

Apparatus for High-Pressure Extrusion of Solid Materials. *A. A. Zharov, A. Yu. Bogdanov, V. M. Zhulin, and G. P. Shakhovskoi.* **1988, No. 4, 1061 [194].**

Piezoelectric-Polymer Strain Gauges. *M. V. Belova, I. P. Golyamina, and D. L. Rastorguev.* **1988, No. 6, 1553 [160].**

Creep Testing of Filamentary Crystals under Uniaxial Tension. *A. P. Ermakov, M. I. Starovikov, S. A. Antipov, A. A. Drozhzhin, and A. M. Roshchupkin.* **1988, No. 6, 1557 [163].**

15.1.2. Dynamic methods for study of mechanical properties

Calculating Dynamic Error of Crusher Method. *A. V. Klimov.* **1977, No. 2, 558 [208].**

Filamentary Silicon Piezoresistor for Measurement of Pulsed Processes. *G. A. Abramchuk, V. A. Alekhin, and V. G. Dergacheva.* **1977, No. 2, 569 [217].**

Apparatus for Measuring Internal Friction of Thin Films in the Process of Plastic Deformation in the Temperature Range 4.2-300°K. *V. S. Postnikov, I. A. Safonov, I. V. Zolotukhin, and V. E. Miloshenko.* **1977, No. 5, 1448 [184].**

Sensitivity of Silicon-Whisker Strain Transducers to Elastic Pulses in the -50 to +110°C Range. *G. A. Abramchuk.* **1978, No. 1, 191 [181].**

Measurement of the Dynamic Response of Materials to the Impact of a Pulsed Electron Beam by the Interferometric Method. *B. F. Gulin, Yu. I. Meshcheryakov, V. A. Morozov, and Yu. V. Sud'enkov.* **1978, No. 2, 495 [215].**

Automatic Setup with Piezoelectric Transducer for Continuous Measurement of Internal Friction and Elasticity Modulus of Solids. *Yu. A. Burenkov, V. I. Ivanov, and B. K. Kardashev.* **1979, No. 5, 1418 [210].**

Automatic Recording of Axial Torsional Oscillations. *G. A. Gamtsemlidze and M. I. Mirzoeva.* **1981, No. 4, 1082 [241].**

Pulsed Strain-Gauge System. *L. S. Poleshchuk.* **1982, No. 6, 1487 [156].**

Measurement of Small Periodic Force Moments Acting on a High-Quality Mechanical Resonator. *V. P. Mitrofanov and O. I. Ponomareva.* **1983, No. 2, 447 [188].**

Diagnostic System for Strong Shock Waves with Automatic Recording. *B. L. Vasin, A. E. Danilov, E. E. Zhuravlev, V. M. Zubkov, Yu. A. Mikhailov, L. P. Silyachevskaya, G. V. Sklizko, L. K. Subbotin, S. I. Fedotov, and S. A. Chaushanskii.* **1983, No. 3, 644 [140].**

Self-Oscillating Measuring Circuit for the Internal Friction of Solids. *V. S. Postnikov, Yu. A. Kapustin, V. S. Borisov, and Yu. K. Shlyk.* **1985, No. 1, 200 [180].**

Automatic Elastic-Relaxation Spectrometer. *V. V. Roshtoev, Z. Sh. Mandzhavidze, M. V. Magradze, V. A. Melik-Shakhnazarov, and G. G. Sekhniaidze.* **1985, No. 4, 958 [201].**

Instrument for Study of Kinetics of Microindentation. *V. R. Regel', V. N. Opekunov, M. S. Kats, Ya. G. Gross, and Z. N. Putyn'.* **1986, No. 4, 918 [150].**

Apparatus for Impact Deformation of Metals. *S. P. Vorona, V. F. Mazanko, D. F. Polishchuk, and V. M. Fal'chenko.* **1986, No. 4, 973 [196].**

Apparatus for Measurement of Internal Friction of Metals in the Conducting State at Temperatures of 4.2-300 K. *I. M. Golev and V. E. Miloshenko.* **1988, No. 5, 1354 [215].**

High-Speed Pulse Manometer. *S. T. Barashkin, S. N. Syromyatnikov, O. I. Tyutyunnik, B. T. Porodnov, and Yu. M. Koshelev.* **1989, No. 3, 644 [137].**

Piezoelectric Pulsed-Pressure Gauge with Tubular Diverter. *E. V. Kalachnikov and P. N. Rogovtsev.* **1989, No. 5, 1241 [236].**

Internal-Friction Meter. *V. S. Postnikov, V. V. Postnikov, and I. P. Kazanin.* **1990, No. 2, 482 [222].**

Measuring Pendulum with Lens at Center of Mass. *A. B. Ivanov.* **1990, No. 4, 943 [203].**

15.2. Acoustic methods

Linear Pulse Selector for Ultrasound Investigations. *Yu. D. Samokhin, L. T. Tsymbal, and T. F. Butenko.* **1977, No. 1, 140 [127].**

Excitation of Ultrasonic Pulses in Solids. *K. O. Boltar and G. D. Mansfel'd.* **1977, No. 1, 142 [128].**

Measurement of Small Variations in Complex Elasticity of Crystals. *S. I. Chizhikov. N. G. Sorokin, and V. S. Petrakov.* **1977, No. 5, 1451 [187].**

Optical Heterodyning in Ultrasonic Speed and Absorption Measurement. *B. A. Strukov, E, D. Yakushkin, K. A. Minaeva, and V. I. Teleshevskii.* **1978, No. 1, 204 [192].**

Simple Transistor Frequency Multiplier. *A. Z. Venger, A. N. Ermak, and A. M. Yakimenko.* **1979, No. 3, 768 [143].**

Determination of Strain Amplitudes in an Ultrasonic Wave at Helium Temperatures. *L. N. Pal'-Val', P. P. Pal'-Val', and V. Ya. Platkov.* **1979, No. 6, 1636 [142].**

Time-Delay Measuring Circuit for a Wave Pulse Used in Acoustic Experiments. *V. P. Voronov, V. M. Malyshev, and V. M. Merkulov.* **1980, No. 1, 172 [168].**

Optical Microphone. *V. P. Klimashin.* **1980, No. 3, 688 [135].**

Determination of the Acoustic Parameters of Crystals by an Optical Heterodyning Method. *B. A. Strukov, T. P. Spiridonov, and K. A. Minaeva.* **1980, No. 6, 1482 [154].**

Self-Excited Oscillator for the Contactless Investigation of Sound Attenuation and Dispersion in Metals. *A. N. Vasil'ev, Yu. P. Gaidukov, and A. P. Perov.* **1980, No. 6, 1511 [176].**

Chamber for High-Pressure Ultrasonic Investigations of Liquids. *Sh. Kh. Ikramov, T. Sh. Akhmedov, I. B. Shin, and F. F. Voronov.* **1980, No. 6, 1529 [190].**

Small-Volume Differential Manometer for Ultrasonic Velocity and Absorption Measurements. *A. P. Sarvazyan and D. P. Kharakoz.* **1981, No. 3, 782 [203].**

Measurement of the Speed of Sound in Condensed Media by Mössbauer Spectroscopy. *A. R. Mkrtchyan, L. A. Kocharyan, A. R. Arakelyan, G. A. Arutyunyan, and G. G. Tohkmakhyan.* **1981, No. 6, 1527 [180].**

Instrument for Visualizing Ultrasound in Air by Means of a Liquid-Crystal Film. *F. F. Legusha, A. N. Slavin, and V. G. Khaustov.* **1981, No. 6, 1544 [195].**

Measuring Small Hypersonic Attenuations in Crystals. *E. M. Ganapol'skii, A. P. Korolyuk, and V. V. Tarakanov.* **1982, No. 1, 231 [202].**

Apparatus for Measuring the Velocity of Acoustic Waves in Solids. *A. I. Korobov, Yu. A. Brazhkin, and S. G. Buga.* **1982, No. 6, 1490 [158].**

Edge Transducer for the Excitation of Surface Acoustic Waves. *B. S. Borshchan, M. V. Manuilov, and O. Yu. Serdobol'skaya.* **1983, No. 3, 690 [181].**

Stabilization of Optical Interference Schemes for Measuring Small Acoustic Signals. *V. P. Trotsenko.* **1984, No. 6, 1473 [158].**

Apparatus for Acoustical Investigations in the Process of Plastic Deformation at Temperatures of 4.2-300°K. *V. V. Zoninashvili, U. Messerschmidt, V. A. Melik-Shakhnazarov, I. A. Naskidashvili, and N. M. Yastrebova.* **1984, No. 6, 1493 [175].**

Apparatus for Investigating the Separation of a Gas Mixture into Two Phases by the Ultrasonic Method. *B. E. Kanishchev, L. L. Pitaevskaya, and A. P. Kurshin.* **1984, No. 6, 1497 [178].**

Apparatus for Measurement of Ultrasound Velocity in Liquid Metals at High Temperatures and Pressures. *D. I. Arnol'd, A. M. Gordeenko, P. N. Ermilov, V. F. Kozhevnikov, and S. P. Naurzakov.* **1985, No. 5, 1173 [167].**

Automatic Device for Resonance Measurement of Propagation Time of Elastic Waves in Solids at High Pressures. *Yu. S. Il'inykh and S. S. Sekoyan.* **1985, No. 6, 1421 [165].**

Bergmann Method for Measurement of Velocities of Body and Surface Elastic Waves. *V. G. Zubov and M. M. Firsova.* **1986, No. 2, 479 [197].**

Highly Stable Capacitive Ultrasonic Transducer. *V. A. Lugovoi and V. P. Trotsenko.* **1986, No. 3, 716 [194].**

Ultrasonic Apparatus for Study of Elastic-Wave Velocities in Solids. *G. D. Ushakov and L. S. Poleshchuk.* **1986, No. 6, 1437 [177].**

Acoustic-Signal Spectrum Analyzer. *V. I. Semikhin.* **1987, No. 3, 741 [214].**

Cell for Low-Temperature Measurements on the Acoustic Parameters of Crystals. *A. M. Antyukhov and V. I. Kutukhov.* **1987, No. 3, 750 [222].**

Photoacoustic Microscope with Optical Scanning. *A. M. Ashurov, U. Madvaliev, V. V. Proklov, I. M. Beremzhanov, and A. A. Zhavoronkov.* **1988, No. 2, 439 [154].**

Self-Adjusting Thin-Film Capacitive Ultrasonic Sensor. *A. N. Bondarenko, A. I. Kondrat'ev, and V. A. Lugovoi.* **1988, No. 2, 497 [197].**

Automated Measurement of Surface-Acoustic-Wave Velocity in Piezoelectric-Crystal Plates. *A. N. Annenkov, I. A. Bunin, A. V. Dobriyan, V. D. Ligun, N. G. Sorokin, and S. I. Chizhikov.* **1988, No. 5, 1299 [174].**

Ultrasonic Interferometer with Reentrant Resonator. *V. I. Semikhin.* **1989, No. 3, 700 [184].**

Pressure Sensor for Longitudinal Acoustic Waves. *O. M. Savenko.* **1989, No. 6, 1425 [170].**

Sound-Velocity Meter. *A. M. Izmailov, E. V. Mitrofanova, and N. A. Nasibov.* **1990, No. 5, 1196 [204].**

Nondestructive Quality Control of Piezoelectric Transducers for Acoustic Devices. *A. F. Tavasiev, M. A. Talalaev, A. N. Torgashin, A. N. Simakov, and N. K. Chalikidi.* **1990, No. 6, 1399 [155].**

Method for Variation of Light-Scattering Angle for Measurement of Hypersound Parameters in Liquids. *A. A. Shamov and T. V. Burlachenko.* **1991, No. 1, 196 [189].**

Sound-Velocity Meter of Increased Accuracy. *A. M. Izmailov, E. V. Mitrofanova, and N. A. Nasibov.* **1991, No. 3, 655 [164].**

Device for Visual Observation of Ellipticity and Rotation of Ultrasound Polarization Plane. *A. M. Burkhanov, V. V. Gudkov, and I. V. Zhevstovskikh.* **1991, No. 3, 658 [167].**

Use of Microcomputer and CAMAC System for Automatization of Acoustic Measurements. *B. B. Voronov, I. N. Kokshaiskii, and A. I. Korobov.* **1991, No. 4, 839 [96].**

Laser Interferometer Sound-Pressure Meter. *E. S. Avdoshin.* **1991, No. 4, 909 [156].**

15.3. High pressures

Low-Temperature Mechanical Press for Studying the Mössbauer Effect. *H. Wenzel, A. Kh. Sherif, A. A. Opalenko, and R. N. Kuz'min.* **1977, No. 1, 262 [228].**

High Pressure System for Nuclear Magnetic Resonance Spin-Echo Apparatus. *A. P. Arkhipov, N. K. Gaisin, and F. M. Samigullin.* **1977, No. 2, 552 [203].**

Installation for Investigating the Isothermal Compression of Solid Hydrogen up to 25 kbar at Temperatures of 60-130°K. *Yu. M. Pavlyuchenko, A. N. Utyuzh, V. V. Kechin, A. I. Likhter, L. Z. Ponizovskii, and A. P. Novikov.* **1978, No. 2, 483 [204].**

Hydrothermal Installation with an Internal Heater for Pressures up to 10 kbar. *P. P. Shamaev, A. P. Grigor'ev, and V. V. Tarasov.* **1978, No. 3, 749 [182].**

Apparatus for Optical Measurements under Conditions of Hydrostatic Pressure up to 2 kbar at Temperatures ≤25°K. *I. I. Zasavitskii.* **1978, No. 5, 1368 [191].**

Compact 500-ton Hydraulic Press of Force. *A. P. Novikov and M. D. Klimov.* **1979, No. 5, 1413 [206].**

Equipment for Producing High Pressures and Pulsed Magnetic Fields. *G. A. Govor, V. M. Dobryanskii, and G. I. Makovetskii.* **1982, No. 3, 723 [186].**

A High-Pressure Regulator. *A. N. Zisman and V. N. Kachinskii.* **1982, No. 4, 1036 [232].**

50-Ton Press for Low-Temperature Investigations. *V. V. Evdokimova, A. P. Novikov, I. A. Shutov, T. S. Gorovikova, and Yu. M. Khitrov.* **1982, No. 5, 1240 [168].**

A Low-Temperature Press Fitted with a Dilatometer. *A. P. Kurguzov, Yu. A. Lisovskii, Ya. M. Mukovskii, Yu. D. Otstavnov, N. A. Roshchupkin, and I. V. Fal'kovskii.* **1985, No. 2, 482 [201].**

Apparatus for Recording Ferromagnetic-Paramagentic Transitions at Pressures to 30 GPa. *V. G. Tissen, E. G. Ponyatovskii, V. M. Kulakov, F. I. Lobanov, and V. K. Shigin.* **1986, No. 5, 1178 [175].**

Device for Measurement of Induced Mechanical Moment. *V. P. Naberezhnykh and O. N. Beloshov.* **1989, No. 5, 1239 [234].**

Device for Study of Electron Paramagnetic Resonance at Elevated Gas-Medium Pressure. *A. A. Dadali, L. S. Lyubchenko, and A. A. Veretil'nyi.* **1991, No. 3, 706 [209].**

15.3.1. High-pressure chambers

Chamber for Research in Wide Pressure and Temperature Intervals. *P. I. Polyakov and V. G. Synkov.* **1977, No. 1, 256 [223].**

Optical Chamber with a Fixed Pressure of up to 16 kbar for a Wide Range of Low Temperatures. *V. B. Anzin, M. V. Glushkov, M. I. Eremets, E. S. Itskevich, Yu. V. Kosichkin, and A. M. Shirokov.* **1978, No. 2, 487 [208].**

High-Pressure Chamber up to 30 kbar for Neutron-Diffraction Research. *V. K. Fedotov, L. F. Bondarchuk, V. P. Zhebelev, and E. G. Ponyatovskii.* **1978, No. 4, 1096 [231].**

Lower-Temperature Hydrostatic Pressure Chamber up to 30 kbar of Nonmagnetic Materials. *E. S. Itskevich, A. N. Tolmachev, A. M. Shirokov, and N. M. Gridina.* **1979, No. 1, 214 [201].**

Preparation of Pellets of Boron Powder for X-Ray Investigations under Pressure. *V. I. Kamenev and B. Ya. Sinel'nikov.* **1979, No. 1, 270 [252].**

Pressure and Temperature Distributions in Solid-Phase Cell with Large Useful Volume at 40 kbar and 1500°C. *Yu. A. Litvin.* **1979, No. 5, 1415 [207].**

High-Pressure Systems for Research on the Mössbauer Effect at Low Temperatures. *G. N. Stepanov.* **1980, No. 1, 208 [200].**

High-Pressure Low-Temperature Optical Chamber. *V. A. Voloshin and A. I. Kas'yanov.* **1980, No. 1, 211 [203].**

Chamber for Investigating the Isothermal Compression of Solid Gases in a Wide Range of Pressure and Low Temperatures. *A. N. Utyuzh and V. V. Kechin.* **1980, No. 3, 760 [200].**

A Compact Self-Containing Fixed-Pressure Chamber. *M. L. Shubnikov.* **1981, No. 5, 1290 [178].**

A Chamber for Studying the Mössbauer Effect at Hydrostatic Pressures up to 17 kbar and Temperatures 78-450°K. *I. N. Nikolaev and V. P. Potapov.* **1981, No. 5, 1292 [180].**

A High-Pressure Container for Use at Low Temperatures in Strong Magnetic Fields. *P. I. Polyakov, V. V. Permyakov, V. G. Synkov, and I. G. Gavrish.* **1982, No. 1, 229 [201].**

Low-Temperature Optical Two-Stage High-Pressure Chamber. *V. A. Voloshin and A. I. Kas'yanov.* **1982, No. 5, 1243 [170].**

Low-Temperature High-Pressure Optical Chamber. *M. F. Shchanov, K. P. Meletov, and V. A. Petrovskii.* **1985, No. 4, 974 [216].**

Spectrophotometer Cell for Studying Fermentation Reactions under High Hydrostatic Pressure. *V. A. Drachev, V. Ya. Chernyak, and D. P. Sukhoi.* **1985, No. 4, 982 [222].**

Compact Independent Fixed-Pressure Chamber for Powders. *A. V. Umarov, U. Abdurakhmanov, A. R. Faiziev, and M. A. Magrupov.* **1985, No. 6, 1470 [206].**

Independent High-Hydrostatic-Pressure Optical Chamber. *N. N. Stepanov, Yu. F. Markov, and V. Yu. Mirovitskii.* **1986, No. 5, 1223 [214].**

Nonhydrostatic Stress in Fixed-Pressure Vessels at Low Temperatures. *V. F. Keptya, M. Yu. Lavrenyuk, and N. Ya. Minina.* **1987, No. 5, 1210 [174].**

Low-Temperature 20-kbar High-Pressure Chamber for Millimeter-Wave Spectrometer. *S. N. Lukin and O. P. Teslya.* **1988, No. 1, 214 [184].**

Piston-and-Cylinder High-Pressure Chamber for Study of Solids under Conditions of Shear Deformation at Temperatures of 77-300 K and Pressures to 1.85 GPa. *V. V. Aksenenkov, V. D. Blank, Yu. S. Konyaev, and É. I. Éstrin.* **1988, No. 2, 458 [169].**

High-Pressure Chamber for Polarization Measurements. *K. P. Meletov.* **1990, No. 1, 234 [215].**

15.3.2. Devices with hard anvils

Cell for Solid-Phase "Anvil-Toroid" Apparatus for the Investigation of the Electric Conductivity of Materials up to 8 GPa. *A. K. Butylenko, V. N. Sokolovskii, and G. P. Gazha.* **1978, No. 6, 1621 [148].**

Chamber with Plungers of Polycrystalline Cubic Boron Nitride for Mössbauer Investigations at High Hydrostatic Pressures. *E. V. Kapitanov and E. N. Yakovlev.* **1978, No. 6, 1623 [149].**

Comparison of Solid Media which Transmit Pressures up to 130 kbar in an Anvil Device with a Lune Toroid. *Yu. A. Litvin.* **1979, No. 3, 820 [191].**

A Diamond Pressure Chamber Operating up to 28 GPa for X-Ray Use. *T. N. Kolobyanina, G. B. Demishev, T. I. Dyuzheva, V. G. Losev, and S. S. Kabalkina.* **1984, No. 2, 465 [194].**

An Apparatus with Transparent Anvil Windows for Optical and X-Ray Studies at High Pressures. *B. A. Fursenko, Yu. A. Litvin, V. D. Kropachev, and O. V. Kholdeev.* **1984, No. 5, 1236 [174].**

A Diamond Chamber for Examining the Effects of Shear Deformation on the Structure and Properties of Solids at Pressure up to 43 GPa. *V. D. Blank, Yu. S. Konyaev, A. I. Kuznetsov, and E. I. Estrin.* **1984, No. 5, 1240 [178].**

Production of Static Pressures of Up to 100 GPa Using Diamond Anvils. *V. N. Kachinskii and S. M. Stishov.* **1987, No. 2, 442 [173].**

Diamond Chamber for Shear Deformation of Solids at Pressures of Up to 86 GPa. *I. A. Barabanov, V. D. Blank, and Yu. S. Konyaev.* **1987, No. 2, 445 [176].**

Multichannel Microspectroscopy of Combination Scattering at High Pressure in Diamond Anvils. *O. V. Kholdeev, B. A. Fursenko, and I. A. Belitskii.* **1988, No. 3, 723 [172].**

Diamond Chamber for Study of Solids with Simultaneous Application of Shear Stress and Pressure to 24 GPa. *V. D. Blank, V. G. Danilov, and I. A. Lastenko.* **1990, No. 2, 442 [186].**

Generation of 15-GPa Pressure by means of Sapphire Cell. *A. M. Patselov, K. M. Demchuk, and A. A. Starostin.* **1990, No. 6, 1402 [157].**

Light Depolarization by Anvils in High-Pressure Apparatus. *K. P. Meletov.* **1990, No. 6, 1428 [179].**

15.3.3. Measurements at high pressures

Method of Optical Investigations under Pressure with a Detector in the Hydrostatic Pressure Zone. *M. I. Eremets, Yu. V. Kosichkin, N. P. Kulikova, and A. M. Shirokov.* **1977, No. 1, 258 [225].**

Polarized Light Method of Investigation under Hydrostatic Pressure. *M. I. Eremets, Yu. V. Kosichkin, and A. M. Shirokov.* **1977, No. 1, 260 [227].**

Measurement of Transitions to the Superconducting State under High Pressure by the Contactless Method. *E. M. Dizhur and E. S. Itskevich.* **1977, No. 1, 265 [230].**

High-Pressure Chamber for Nuclear Quadrupole Measurements on ISSh-1 Spectrometer. *V. L. Serebrennikov and A. K. Moskalev.* **1977, No. 4, 1122 [183].**

Hydrostatic Liquids for Observation of NMR of ^1H at High Pressures and Low Temperatures. *B. V. Pestryakov.* **1977, No. 5, 1454 [189].**

Sensing Element for Normal Stresses in a Solid Medium at High Pressures. *Yu. F. Shul'pyakov, A. I. Kolomiitsev, T. N. Solov'eva, and T. V. Olyunina.* **1979, No. 3, 822 [194].**

Component for Measuring Electric Conductivity of Liquids and Gases at High Pressures and Temperatures. *M. M. Korsunskii.* **1980, No. 2, 519 [207].**

Measuring the Parameters of Liquid Media at High Pressures. *S. P. Dmitriev and V. V. Sokolov.* **1984, No. 1, 202 [184].**

Apparatus for the Study of Dislocation Dynamics in Crystals at a Pressure of up to 1.5 GPa. *G. N. Ermolaev and S. I. Ninenko.* **1985, No. 1, 197 [178].**

Measurement of $(\partial T/\partial P)_s$ for Solids and Liquids under Pressure to 3 GPa. *L. N. Dzhavadov and Yu. I. Krotov.* **1985, No. 3, 687 [168].**

Apparatus for Galvanomagnetic Studies of Organic Metals at High Pressures. *V. P. Bubnov, I. S. Krainskii, V. N. Laukhin, D. N. Fedutin, and M. K. Makova.* **1986, No. 1, 205 [178].**

Measurement of Adiabatic Thermal Pressure Coefficient in Periodic Mode. *L. A. Blagonravov and Modkhen Feissal.* **1991, No. 4, 922 [167].**

15.3.4. High-pressure manometers and gauges

Tunnel Diodes for Pressure Measurements. *N. P. Krivorotov, A. P. Vyatkin, and S. S. Shchegol'.* **1977, No. 2, 579 [226].**

High-Pressure Calibration in Chambers Using Shift of the Ruby R_1-Luminescence Line in Temperature Range 80-550°K. *M. F. Shchanov and S. I. Subbotin.* **1977, No. 4, 1190 [246].**

Pressure Sensors Based on Variable-Gap $Al_xGa_{1-x}As$. *Z. N. Bartashevich, A. A. Kavalyauskas, and E. A. Shimulite.* **1977, No. 5, 1479 [210].**

Temperature Coefficient of Resistance of Pressure Sensors Made from Variable-Gap $Al_xGa_{1-x}As$. *Z. N. Bartashevich and E. A. Shimulite.* **1977, No. 5, 1482 [212].**

Optical Instrument for Measuring Pulsed Pressures. *A. A. Bakeev, I. V. Bykov, L. A. Vasil'ev, A. I. Fedosimov, and V. I. Yakovlev.* **1978, No. 2, 498 [218].**

Pressure Measurement from ESR in Isostructural Ferroelectrics. *A. I. Filippov.* **1978, No. 2, 532 [250].**

Piezoelectric Pressure Sensor. *I. S. Glushkov, N. N. Turkova, and L. I. Arutyunova.* **1979, No. 5, 1468 [253].**

Mercury Membrane Separator for Measuring Pressures of up to 1 kbar. *A. I. Porkhun and L. D. Porkhun.* **1980, No. 3, 800 [236].**

Optical Transducer for Pulsed Pressures. *E. A. Kostyukevich.* **1983, No. 5, 1237 [209].**

A Fast Thermally Stable Linear Pressure Transducer Based on a Rectifying Metal–Silicon Contact. *V. A. Presonov, O. P. Kanchukovskii, and A. L. Shenkevich.* **1984, No. 1, 245 [222].**

Operation of a Pressure Sensor in Elastic and Plastic Media. *V. V. Avilov and R. G. Arkhipov.* **1984, No. 4, 1006 [193].**

NMR Manometer for Measurement of High Pressures at Helium Temperatures. *V. D. Doroshev, N. M. Kovtun, A. N. Molchanov, P. I. Polyakov, and V. G. Synkov.* **1984, No. 4, 1008 [195].**

Digital Pressure Gauge. *Yu. P. Miryuk, Yu. L. Polunov, and V. P. Ushankov.* **1986, No. 5, 1202 [196].**

Fiber-Optic Device for Measurement of Pulse Pressure. *I. S. Yavelov and Yu. A. Chernov.* **1988, No. 5, 1253 [138].**

Dynamic Characteristics of "Varizon" Semiconductor Pressure Gauges. *K. Bernotas, A. Blazhis, A. Gritsyus, S. Zhilenis, and G. Tautvaishas.* **1988, No. 5, 1294 [170].**

Ultrasonic Manometer for Pressures to 9 GPa and Its Pressure-Scale Reference Points. *F. F. Voronov, E. V. Chernysheva, and G. S. Vorotnikov.* **1989, No. 3, 703 [186].**

AlGaAs-Film-Based Pressure-Pulse Sensor. *I. M. Sigeikin, S. G. Zhilenis, V. S. Sotnikov, and A. A. Gritsyus.* **1991, No. 3, 720 [222].**

Tensometric Pressure Gauge. *G. I. Kiknadze, A. A. Mogil'nitskii, A. G. Pleshch, and A. L. Shenkevich.* **1991, No. 5, 1177 [175].**

15.3.5. Compressors, seals, entrances

Electrical Inlet into a High-Pressure Chamber. *Yu. G. Kovalev, V. G. Khizhnyak, and I. D. Kosobudskii.* **1977, No. 3, 914 [260].**

Thermocouple Lead Ins for High-Pressure Chamber Operating with Strongly Compressible Media. *A. P. Novikov and I. G. Yurchenko.* **1977, No. 4, 1209 [263].**

Electrical Lead-Ins with Composite Seal for High-Pressure (to 5 kbar) Chambers. *M. M. Korsunskii.* **1979, No. 5, 1466 [251].**

Pressurizer for Automatic High-Pressure Valve Chests. *M. L. Shubnikov and A. A. Averkin.* **1980, No. 2, 497 [188].**

Multichannel Electrical Lead into a High-Pressure Chamber. *M. L. Shubnikov.* **1980, No. 3, 796 [232].**

End Packing of High-Pressure Apparatus. *M. L. Shubnikov.* **1980, No. 4, 1057 [231].**

Electrical Leads for a Hydrostatic Pressure Chamber. *P. P. Shamaev.* **1982, No. 5, 1310 [224].**

Hydraulic Connector for Joining High-Pressure Units. *V. M. Borovkov, V. A. Gudzev, and V. E. Tarasov.* **1983, No. 3, 729 [215].**

Piston Sealing in a High-Pressure Apparatus. *I. N. Polandov and A. V. Kryukov.* **1983, No. 4, 985 [219].**

Chlorofluorocarbon Oils in the Production of High Hydrostatic Pressures. *V. V. Kisel'nik.* **1983, No. 6, 1459 [188].**

A Pressure Amplifier with a Mobile Piston Seal for Use with Gases at Pressures up to 2 GPa. *N. V. Kapustin, I. P. Ivanov, V. V. Avdeev, and M. I. Ioffe.* **1984, No. 1, 200 [183].**

Rubber Sealing Components in High-Pressure Gas Systems. *A. P. Kurshin and B. E. Kanishchev.* **1984, No. 1, 243 [220].**

Electrical Lead-Ins For a High-Pressure Gas Chamber. *A. P. Kurshin, Yu. V. Stolyarov, and B. E. Kanishchev.* **1984, No. 2, 495 [220].**

A Gland Seal for a Pressure Multiplier. *A. P. Kurshin.* **1985, No. 1, 231 [209].**

Multiconductor Lead-In for High-Pressure Chamber. *S. V. Cherepov and V. A. Chernenko.* **1985, No. 5, 1216 [205].**

Clamping Device for Independent High-Pressure Valve Boxes. *S. V. Cherepov and V. A. Chernenko.* **1986, No. 4, 987 [209].**

Internal-Heater Lead-Ins for High-Pressure Apparatus. *B. E. Kanishchev and A. P. Kurshin.* **1986, No. 6, 1451 [190].**

Sealing Unit for Pistons of High-Pressure Devices. *S. V. Cherepov and V. A. Chernenko.* **1987, No. 1, 233 [213].**

Simple Design of Window for a Pressure Vessel. *M. Z. Azarkh, B. M. Kaporovskii, O. A. Prokhorenko, and N. N. Yurtsev.* **1987, No. 3, 739 [212].**

Modification to the Valve on a NZhR Pump for Use up to 3 kbar. *I. N. Polandov, A. V. Kryukov, O. K. Gulish, and N. S. Alekhina.* **1987, No. 3, 740 [213].**

Remote Gas Valve for Pressures to 2 GPa. *N. V. Kapustin.* **1987, No. 5, 1263 [217].**

Seal for High-Pressure Vessels with Increased Locking Force with Heating. *N. V. Kapustin and V. I. Sorokin.* **1987, No. 6, 1492 [189].**

Hermetic Lead-in for Optical Cables into Vessels under Pressure. *E. V. Suvorov and A. I. Khaustov.* **1988, No. 4, 1063 [195].**

High-Pressure Bellows Valve. *V. M. Bystritskii, A. T. Vasilenko, V. B. Granovskii, V. A. Stolupin, and V. A. Utkin.* **1989, No. 4, 972 [212].**

Seals for Small Piston of Gas-Pressure Booster. *A. P. Kurshin, B. E. Kanishchev, and L. V. Guseva.* **1989, No. 6, 1421 [167].**

Hermetic Cable Lead-In. *Yu. S. Vislenev and V. G. Protsenko.* **1990, No. 1, 223 [207].**

Solid-Fuel Compressor with Gas-Dynamic Seal. *V. A. Kuznetsov, V. V. Marchenko, A. D. Luk'yanenko, and G. R. Krivopalov.* **1990, No. 3, 725 [218].**

Electrical Lead for Potentiometric Measurements in Fluids at Temperatures to 300°C and Pressures to 100 MPa. *E. G. Osadchii and F. P. Arzhatskii.* **1991, No. 3, 703 [207].**

Simple 1000-atm Gas-Pressure Booster. *L. B. Kriksunov.* **1991, No. 5, 1179 [176].**

15.4. Dilatometers, displacement, rotation, and vibration meters

Measurement of Small Mechanical Vibrations by a Capacitive Transducer with a Superconducting Resonator. *V. B. Braginskii, V. I. Panov, V. G. Petnikov, and V. D. Popel'nyuk.* **1977, No. 1, 269 [234].**

Instrument to Measure Small Deformations on Transparent Bodies. *G. A. Andreev, V. S. Vinogradov, I. G. Povolotskaya, and D. M. Uslavtsev.* **1977, No. 3, 889 [240].**

Shaft Position-to-Digital Converter. *A. N. Buldakov, V. I. Kovalenok, V. E. Smirnov, and S. A. Kolchedantsev.* **1978, No. 2, 363 [90].**

Angle-to-Code Converter. *A. E. Golovin and I. V. Naumov.* **1978, No. 3, 680 [123].**

Apparatus for Recording Topograms of the Oscillations of a Resonant Body. *V. L. Temerov.* **1978, No. 5, 1323 [151].**

Rotation-Angle Pickup for Goniometer. *V. I. Kulibaba.* **1979, No. 1, 269 [251].**

Measurements of Small Mechanical Displacements and Vibrations of Specimens Using a Laser. *V. A. Domyshev and V. A. Proshin.* **1979, No. 3, 837 [207].**

Parametric Transducer for Displacements under Dynamic Damping. *V. A. Krysanov, M. I. Kuklachev, and V. N. Rudenko.* **1979, No. 4, 1143 [240].**

Dilatometer Based on a 6MKh1S Mechanotron. *S. M. Barmin, R. P. Krentsis, A. V. Mikhel'son, and P. V. Gel'd.* **1979, No. 5, 1433 [222].**

Highly Sensitive Acclerometer for Measuring the Vibrations of Experimental Equipment. *G. A. Mikhailov.* **1979, No. 6, 1626 [134].**

Angle-Code Converter Using Airtight Electromagnetic Contacts. *I. V. Naumov.* **1980, No. 2, 514 [202].**

Differential Contact Length Gauge. *N. M. Mukhtarov and I. K. Rakhimov.* **1980, No. 4, 1059 [237].**

Laser Instrument for Measuring the Amplitude of Oscillations of Electromechanical Transducers. *I. P. Golyamina, G. L. Kiselev, A. M. Lachugin, and V. K. Chulkova.* **1980, No. 6, 1490 [161].**

Mechanical Vibrometer. *S. Yu. Sakalauskas and A. T. Dobrovol'skis.* **1981, No. 2, 500 [200].**

Sensitive Dilatometer with Capacitive Displacement Detector. *S. I. Vasil'ev and V. I. Panov.* **1981, No. 2, 503 [202].**

Highly Sensitive Dilatometer with a Bridge Circuit for Measuring Capacitance. *E. B. Amitin, Yu. A. Kovalevskaya, and O. A. Nabutovskaya.* **1981, No. 4, 1045 [207].**

Distance-Frequency Transducer. *A. D. Samsonenko.* **1981, No. 4, 1080 [239].**

A Capacitance Transducer for Measuring the Magnetostriction of Small Specimens at 4.2°K. *Z. A. Kazei, M. V. Levanidov, and V. I. Sokolov.* **1982, No. 1, 223 [196].**

Amplitude Meter for Infralow-Frequency Waves. *V. N. Skorobogatov and Yu. V. Yurchenko.* **1982, No. 4, 935 [141].**

High-Sensitivity Dilatometer for High-Pressure Investigations. *A. N. Zisman and V. N. Kachinskii.* **1982, No. 5, 1245 [172].**

Meter for Monitoring the Vibration Amplitude of an Ultrasonic Tool. *I. P. Golyamina, Z. I. Polyakov, and N. A. Khlopotunova.* **1982, No. 5, 1304 [220].**

Measurement of Small Electromechanical Deformations of Crystals by the Capacitive Transducer Method. *V. M. Zrazhevskii, M. P. Zaitseva, and Yu. I. Kokorin.* **1983, No. 1, 170 [142].**

Device for Measuring the Rotation Angle of a Specimen Holder in a Solenoid. *V. M. Teplinskii.* **1983, No. 1, 223 [180].**

Angle Binary-Code Converter. *B. A. Kudryashov and A. B. Shishkov.* **1983, No. 5, 1119 [109].**

Magnetodynamic Meter for Small Mechanical Vibrations. *V. A. Krysanov and V. N. Rudenko.* **1984, No. 3, 743 [199].**

Bidirectional Angle-to-Digit Converter. *V. N. Bulanov and K. A. Aleksandrov.* **1985, No. 1, 256 [229].**

Goniometer-Rotation-Angle Recorder. *A. V. Shchagin.* **1985, No. 3, 721 [197].**

Increasing the Resolution of Photoelectric Angle-to-Code Converters. *L. P. Zakharov.* **1985, No. 5, 1211 [200].**

Device for Measurement of Magnitude and Rate of Linear Motion. *V. V. Kruglov, A. M. Kovalev, B. N. Gorovoi, and N. P. Prokudenkov.* **1986, No. 2, 494 [211].**

Displacement Converter with Improved Resolution. *S. L. Titov.* **1986, No. 3, 667 [147].**

Piezoelectric-Modulus Meter for Films. *V. A. V'yun, V. N. Yumashev, and I. B. Yakovkin.* **1986, No. 6, 1453 [192].**

Displacement-to-Code Converter Based on Élektronika K1-20 Controller. *V. V. Kangin, V. A. Sharov, B. D. Shurygin, and N. P. Yampurin.* **1986, No. 6, 1467 [204].**

Displacement-to-Number Converter and Its Interfacing with Microprocessor System. *V. T. Malikov, I. Ya. Khaimzon, A. I. Kachkovskii, and S. L. Chumachenko.* **1987, No. 1, 80 [76].**

Accumulating Angle-to-Digit Converter. *A. S. Mikhalev, S. N. Sidoruk, and I. M. Chushenkov.* **1987, No. 1, 144 [130].**

Converter of Binary Angle Code. *S. K. Barsegyan.* **1987, No. 4, 990 [210].**

High-Speed Capacitive Meter for Small Movements of a Conductive Surface. *V. V. Apollonov, S. I. Zienko, S. V. Murav'ev, and S. A. Chetkin.* **1987, No. 4, 993 [212].**

Dilatometer with Inductive Sensor. *I. G. Zakrevskii and S. V. Cherepov.* **1987, No. 5, 1269 [223].**

Device for Adjustment of Precision Motion Transducers. *A. S. Kuz'minskii, S. S. Skulachenko, and I. I. Yudin.* **1987, No. 6, 1497 [193].**

Highly Stable Capacitive Displacement Transducer. *A. Ya. Sapotnitskii.* **1988, No. 4, 1073 [204].**

Digital Photoelectric Converter of Linear Displacements. *D. A. Bugrov, M. A. Gabidulin, I. D. Leibovich, and E. M. Pashaev.* **1989, No. 2, 493 [209].**

Dilatometer with Capacitive Sensor for Study of Thermal Expansion of Thin Films. *V. Z. Bashirov and A. P. Kal'yanov.* **1989, No. 2, 509 [223].**

Linear Converter of Spacing of Parallel-Plate Capacitor to DC Voltage. *Yu. A. Tuflin, A. I. Dobretsov, and V. V. Sasnovskii.* **1989, No. 3, 730 [210].**

Measuring Cell for Study of the Piezoelectric Effect by a Quasistatic Method at Temperatures of 100-600 K. *N. A. Zakharov, T. V. Zakharova, V. P. Orlovskii, and O. S. Mergelyan.* **1989, No. 4, 974 [213].**

Capacitive Dilatometer for Measurements in the Temperature Range of 0.8-20 K. *A. V. Soldatov, V. I. Kuchnev, A. M, Tolkachev, A. N. Aleksandrovskii, A. Yu. Ivanov, and I. Ya. Minchina.* **1990, No. 4, 984 [237].**

15.5. Displacement and adjustment devices, supports, suspensions, weights

Diamagnetic Suspension and Its Applications (Survey). *V. M. Ponizovskii.* **1981, No. 4, 833 [7].**

Instrument for Measuring the Tension of the Filament in Multiwire Chambers. *F. E. Zyazyulya, S. M. Korenchenko, and K. G. Nekrasov.* **1980, No. 5, 1101 [45].**

Precision Balance with Radio-Engineering Displacement-Sensing Unit. *V. B. Braginskii, V. I. Panov, and V. N. Frontov.* **1977, No. 3, 871 [225].**

Magnetic Systems for Suspending Diamagnetic Bodies Freely. *V. M. Ponizovskii.* **1977, No. 5, 1439 [178].**

Electronic Weights Using a Digital Indicator. *I. K. Sukharev, A. A. Kozhukhov, and G. S. Bondarev.* **1978, No. 3, 813 [239].**

Electromechanical Vibrating System for the Observation of Small Periodic Mass Variations. *V. I. Panov and V. N. Frontov.* **1979, No. 1, 217 [204].**

"Crystal" Goniometric Setup with Electronic Control System. *N. A. Agarkov, V. G. Gorbenko, Yu. V. Zhebrovskii, A. S. Zelencher, L. Ya. Kolesnikov, A. L. Rubashkin, and V. F. Chechetenko.* **1979, No. 2, 350 [57].**

Free Suspension of Magnets in Constant Magnetic Field with Aid of Pyrolytic Graphite. *V. M. Ponizovskii.* **1979, No. 4, 1140 [238].**

Microbalance with a Mechanotron Sensor. *I. I. Zaitsevskii, A. I. Zelenkina, and A. N. Imenov.* **1979, No. 5, 1470 [254].**

Control of a Precision Measuring Table with a Hollow-Rotor Asynchronous Motor. *V. G. Voinov, G. S. Ryazanov, and A. M. Seitimbetov.* **1979, No. 5, 1473 [258].**

Air Bearing for Precision Linear Displacement. *V. V. Arkhipov and N. K. Balatsenko.* **1979, No. 5, 1476 [261].**

Differential Frequency Gravimeter. *A. G. Smagin and V. S. Teren'ko.* **1979, No. 6, 1623 [132].**

Vacuum Thermal Balance with Remote Transmission of the Readings for Operation in a Field of Ionizing Radiation. *S. A. Pavlov, F. Ya. Frolov, A. M. Lepeshkin, and M. A. Bruk.* **1980, No. 1, 286 [274].**

Corrector of the Zero Position of the Balance Beam of a Magnetic Balance. *E. M. Agabekyan, S. N. Zelenin, B. I. Il'in, A. F. Radchenko, and A. Ya. Shenfel'd.* **1980, No. 4, 1051 [230].**

Electrodynamic Drive with Pneumatic Sliding Bearing for a Rapid-Scanning Fourier Spectrometer. *V. V. Arkhipov.* **1981, No. 1, 196 [186].**

Torsion Scale for Measurement of Small Gravitational Field Gradients. *V. I. Panov and V. N. Frontov.* **1981, No. 1, 269 [253].**

An Automatic Microbalance Based on an F117 Photogalvanometer. *Yu. G. Basin, Yu. A. Grits, V. I. Isachenko, and N. S. Pakhomovskaya.* **1981, No. 2, 552 [248].**

Electronic Microbalance for Thermogravimetric Analysis. *I. T. Efimov, F. N. Vishnevskii, and I. I. Skorokhodov.* **1981, No. 6, 1568 [215].**

A Free Support for a $SmCo_5$ Magnet in the Field of an Iron Core. *V. M. Ponizovskii and P. A. Maleev.* **1983, No. 2, 475 [213].**

Quality-Factor and Period Meter for a Tuned System. *V. I. Voronin and V. L. Tsymbalenko'.* **1983, No. 4, 961 [197].**

Piezoelectric Aerodynamic Balance for Measuring Small Loads. *V. V. Malov, P. M. Ryabov, and V. G. Farafonov.* **1984, No. 2, 491 [216].**

Programmable Rotator. *I. D. Voronov, V. M. Zaikin, E. I. Kozedub, and V. V. Pashkov.* **1985, No. 1, 254 [227].**

A Scanning Device with Contactless Magnetoelectric Drive and Optoelectronic Angle Display for Space-Probe Instruments. *P. V. Vakulov, Yu. P. Gordeev, V. V. Mel'nikov, B. I. Savin, V. Ya. Shiryaeva, and B. M. Yakovlev.* **1985, No. 2, 485 [203].**

Vibration Damper for Electron Microscope. *V. V. Gasilin, V. V. Kunchenko, and Yu. T. Miroshnichenko.* **1986, No. 3, 761 [229].**

Biaxial Goniometer for Electron Paramagnetic Resonance Measurements. *I. M. Batyaev.* **1986, No. 4, 922 [153].**

Piezoelectric Aerodynamic Balance. *V. V. Malov, P. M. Ryabov, and V. G. Farafonov.* **1986, No. 4, 971 [195].**

Device for Micromovement of Contacts. *Yu. M. Biyanov, Yu. I. Klimanskii, and É. N. Kuz'min.* **1987, No. 1, 223 [204].**

Vibration Damping of Experimental Apparatus for Production of Ultralow Temperatures. *A. A. Golub.* **1987, No. 4, 966 [189].**

Precision Triaxial Vacuum Goniometer with Remote Control. *V. D. Kopanev, V. A. Dravin, A. E. Sedel'nikov, and A. V. Spitsyn.* **1987, No. 4, 987 [207].**

Simple Method for Measurement of Wire Tension in Multiwire Proportional and Drift Chambers. *V. K. Myalitsin, E. V. Smirnov, and B. V. Chuiko.* **1988, No. 2, 307 [44].**

Micropositioner with Magnetic Fixing of Feet. *Yu. P. Volkov, V. A. Papaev, and Yu. F. Fedotov.* **1989, No. 2, 491 [207].**

Servoamplifier for Control of Magnetostriction Drive. *V. V. Apollonov, S. I. Zienko, S. V. Murav'ev, and S. A. Chetkin.* **1989, No. 3, 726 [206].**

Two-Coordinate System for Automatic Control of Mirror-Surface Inclination. *V. V. Apollonov, S. I. Zienko, S. V. Murav'ev, V. V. Ostanin, S. N. Temnov, and S. A. Chetkin.* **1990, No. 1, 225 [208].**

Electromagnetic Suspension System for Wind-Tunnel Studies. *A. V. Kuzin.* **1990, No. 4, 973 [227].**

Precision Rotation Device for Study of Shubnikov-de Haas Oscillations. *B. A. Akimov, I. I. Ivanchik, and S. N. Chesnokov.* **1990, No. 4, 982 [234].**

Apparatus for Study of the Interaction of Electromagnetic Radiation with Oriented Crystals. *V. A. Baskov, V. V. Kim, I. V. Konorov, V. I. Sergienko, and V. A. Khablo.* **1990, No. 5, 1030 [58].**

Low-Frequency Oscillatory System Based on Magnetic Suspension of High-Temperature Superconductor. *N. N. Krasnyuk and V. P. Mitrofanov.* **1991, No. 2, 407 [160].**

Stage for Remote Micropositioning of Specimens. *M. L. Adamovich, A. A. Kosyachkov, and V. T. Cherepin.* **1991, No. 3, 697 [202].**

Instrument for Gravimetric Monitoring of Sorption. *A. G. Kalandarishvili and V. G. Kashiya.* **1991, No. 4, 988 [224].**

High-Speed Magnetic Rotor with Superconducting Bearings. *V. V. Nemoshkalenko, A. A. Kordyuk, B. G. Nikitin, and V. A. Rafalovskii.* **1991, No. 5, 1203 [196].**

15.6. Electric drives

Integrated-Circuit Commutator for Stepping Motor. *V. M. Katsman and A. N. Nikolaev.* **1977, No. 3, 874 [228].**

Stepping System of Scanning on the Basis of a Programmed Reversible Counter F5007. *G. V. Zhivukin.* **1979, No. 1, 145 [137].**

Controllable Semiautomatic Clutch. *V. D. Yushin, A. N. Logvinov, and L. A. Chempinskii.* **1980, No. 3, 804 [239].**

A Precision Platform Digital Control System. *V. N. Govorun, V. I. In'shakov, and E. A. Ustinov.* **1981, No. 3, 668 [99].**

Instrument for Recording the Angular Position of a Rotating Shaft. *K. B. Petrushenko.* **1982, No. 1, 273 [239].**

A Control Unit for a Stepping Motor. *V. N. Salosin, Yu. V. Koshevoi, and E. A. Gushchin.* **1982, No. 3, 757 [213].**

Pulsed Speed Regulator for a DC Electric Motor. *N. D. Tret'yakov.* **1982, No. 5, 1290 [208].**

Modernization of the ÉTO-1 Electric Drive. *A. A. Biryukov, I. V. Poplavskii, Yu. N. Seryakov, R. I. Shabanov, and V. S. Romanchev.* **1983, No. 3, 725 [211].**

Stepping-Motor Control Circuit. *V. I. Tarasov and V. B. Anzin.* **1983, No. 5, 1243 [215].**

Control Unit for the ShD-4 Stepping Motor. *O. S. Maksumov and R. E. Mamedov.* **1984, No. 3, 693 [156].**

Stabilizer of Angle of Shaft Rotation of DC Commutator Motor. *S. N. Nizovoi, F. G. Kulidzhanov, and N. O. Elyutin.* **1984, No. 5, 1300 [230].**

Digital Synchronous Follow-Up System. *V. N. Govorun, V. I. In'shakov, A. P. Leonov, V. V. Popov, V. V. Skvortsov, E. A. Ustinov, and N. N. Chernyavskii.* **1985, No. 1, 227 [205].**

Using a PROM in Schemes for Controlling Stepping Motors. *P. V. Vnukov, V. Yu. Romanov, V. N. Barishnikov, and F. I. Panachev.* **1985, No. 2, 488 [206].**

Commutator-Motor Speed Regulator. *O. A. Belov and N. I. Krasil'nikov.* **1985, No. 5, 1224 [212].**

Universal Stepping-Motor Interface. *S. G. Basiladze and A. P. Shkurinov.* **1986, No. 1, 66 [63].**

Stepping-Motor Commutator Based on Read-Only Memory. *V. A. Burtelov and S. V. Grigor'ev.* **1986, No. 1, 69 [66].**

Stepper-Motor Controller Implemented by K155IR1 Integrated Circuit. *P. V. Petrashen' and S. L. Lidovskii.* **1986, No. 5, 1232 [222].**

Reversible Stepper Drive. *A. L. Logutko, V. Yu. Moiseenko, and V. I. Fesenko.* **1987, No. 2, 318 [71].**

Program Control of a Stepping Motor with the Help of the Élektronika D3-28 Microcomputer. *S. V. Kirillov and V. A. Usin.* **1987, No. 3, 724 [199].**

Simple Circuit for Controlling a Four-Phase Stepping Motor. *V. V. Lederer.* **1987, No. 3, 727 [202].**

Mathematical-Model Study of Servo System with Pulse-Duration Control of Micromovements. *M. A. Dement'eva, A. P. Leonov, V. V. Popov, A. I. Skugarevskii, E. A. Ustinov, and N. N. Chernyavskii.* **1987, No. 5, 1084 [65].**

Study of Digital Servo System of Measuring Platform in Velocity-Stabilization Mode. *N. F. Galitsina, L. F. Zaitsev, V. V. Skvortsov, E. A. Ustinov, M. N. Ukhanov, and N. N. Chernyavskii.* **1987, No. 5, 1090 [70].**

Programmable Controller for Multiphase Stepper Motor. *L. N. Lozovoi.* **1987, No. 5, 1240 [198].**

Stepper-Motor Controller with Electrical Step Subdivision. *S. P. Babanskii and V. V. Lederer.* **1987, No. 5, 1244 [201].**

Stepper-Motor Controller with Dynamic Winding-Current Regulation. *V. A. Burtelov.* **1987, No. 6, 1418 [128].**

Controller for Stepper Motors in Two-Coordinate Drives. *V. I. Ivanov, A. N. Yuzhakov, and A. K. Yakushev.* **1988, No. 1, 256 [221].**

Stepper-Motor Controller. *A. K. Lobach, G. V. Pil'ko, and A. G. Skripnik.* **1988, No. 6, 1586 [185].**

Use of Élektronika MS-2702 Controller with Stepper Motor. *V. P. Artemkin, E. L. Krylova, and A. V. Petrov.* **1989, No. 3, 584 [84].**

Microprogram Controller for Four-Phase Stepper Motor. *L. N. Lozovoi.* **1989, No. 3, 724 [204].**

Shaper of Special Control Pulses for Multiphase Stepper Motor. *L. N. Lozovoi.* **1989, No. 4, 886 [135].**

Closed-Loop Stepper-Motor Controllers. *V. V. Lederer.* **1990, No. 3, 705 [202].**

15.7. Microscopy with mechanical scanning

Scanning Tunneling Microscopy (Review). *V. S. Edel'man.* **1989, No. 5, 993 [25].**

Development of Scanning Tunneling and Atomic-Force Microscopy. *V. S. Édel'man.* **1991, No. 1, 2 [24].**

Scanning Acoustic Microscope. *M. A. Kulakov, A. I. Kustov, and A. I. Morozov.* **1986, No. 2, 476 [194].**

Scanning Tunnel Microscope with Wide Field of Vision. *M. S. Khaikin.* **1989, No. 1, 182 [161].**

Feedback Control System for Scanning Tunnel Microscope. *A. M. Troyanovskii.* **1989, No. 1, 188 [165].**

High-Vacuum Scanning Tunnel Microscope. *V. S. Edel'man.* **1989, No. 4, 901 [149].**

Scanning Tunneling Microscope based on Monolithic Cross-Shaped Piezoelectric Element. *V. K. Adamchuk, A. V. Ermakov, I. V. Lyubinetskii, G. A. Zhitomirskii, and A. E. Panich.* **1989, No. 5, 1176 [182].**

Wide-Field Scanning Tunneling Microscope for Operation with Scanning Electron Microscope. *A. P. Volodin, G. A. Stepanyan, M. S. Khaikin, and V. S. Edel'man.* **1989, No. 5, 1180 [185].**

Compact Low-Temperature Scanning Tunneling Microscope. *I. B. Al'tfeder, A. P. Volodin, and M. S. Khaikin.* **1989, No. 5, 1184 [188].**

Scanning Magnetic-Force Microscope. *A. P. Volodin, M. V. Marchevskii, and M. S. Khaikin.* **1991, No. 2, 413 [165].**

15.8. Ballistic experiments, velocity measurement

Laser Doppler Velocimeter. *A. F. Kovylov, S. B. Kormer, A. V. Pinegin, B. A. Poklontsev, and K. B. Yushko.* **1978, No. 1, 219 [205].**

Use of a Scanistor for Noncontact Measurement of Instantaneous Linear Velocities. *P. I. Gos'kov, Yu. K. Shelkovnikov, and A. G. Yakunin.* **1978, No. 3, 727 [163].**

Diffraction Interferometer in a Ballistic Experiment. *V. A. Komissaruk, V. P. Martynov, and N. P. Mende.* **1979, No. 1, 221 [207].**

Laser Velocity Calibrator for a Nuclear Gamma-Resonance Spectrometer. *S. I. Reiman and K. P. Mitrofanov.* **1980, No. 2, 356 [66].**

Instrument for Automatic Determination of the Direction of the Velocity Vector of a Moving Medium. *P. I. Savostenko and V. I. Tumanov.* **1982, No. 6, 1527 [190].**

Device for Measuring the Speeds of Explosion-Driven Bodies. *V. V. Viktorov, T. M. Karadzhali, and A. S. Chursin.* **1983, No. 5, 1240 [212].**

Radiometric Apparatus for Optical Studies under Ballistic-Path Conditions. *E. P. Andreev, N. N. Baulin, A. M. Biryukov, V. L. Grenkov, A. M. Daushvili, D. S. Ermakov, D. G. Kuvalkin, V. A. Lyutomskii, I. N. Orlova, N. N. Pilyugin, Yu. M. Sagaidachnyi, O. K. Taganov, and A. S. Trufanov.* **1985, No. 3, 672 [155].**

Electrodynamic Projectile-Velocity Meter. *G. N. Korostelev and V. A. Romantsev.* **1985, No. 6, 1471 [207].**

Equipment for Investigating Solid Surfaces by Energy Analysis of Secondary and Scattered Ions. *Yu. G. Skripka, V. S. Vas'ko, and A. N. Grishin.* **1980, No. 5, 1287 [213].**

Apparatus for the Uniform Irradiation of Sample Surfaces with the Beam of Ions Extracted from an Accelerator. *G. I. Gusinskii and A. L. Izotov.* **1981, No. 1, 21 [25].**

Multidetector Neutron Flight-Time Diffractometer in the "Fakel" Accelerator. *B. A. Vindryaevskii, S. N. Ishmaev, V. D. Podshibyakin, I. P. Sadikov, M. N. Severov, and A. A. Chernyshov.* **1981, No. 5, 1135 [38].**

Determination of Hydrogen-Isotope Distribution in Materials Using 14.5-MeV Neutrons. *B. G. Skorodumov.* **1985, No. 5, 1056 [63].**

Apparatus for Comprehensive Study of Radiation Physics of Solids. *A. M. Markus, V. P. Udovenko, V. A. Rykov, V. I. Momot, and N. I. Velichko.* **1986, No. 3, 738 [211].**

Device for Uniform Alpha Irradiation of Solid Powders. *P. O. Orlenev and P. V. Mel'nikov.* **1988, No. 1, 232 [200].**

Target Device for Simultaneous Irradiation of Several Specimens by Ion Beam in Vacuum. *V. A. Ryzhkov.* **1989, No. 1, 47 [48].**

Space Simulator for Materials Studies. *M. M. Mikhailov and Yu. A. Rylkin.* **1991, No. 3, 673 [180].**

16.1. Measurement of kinetic coefficients, calorimetry

Fast-Acting Miniature Microcalorimeter. *Yu. R. Red'ko and B. N. Demchuk.* **1977, No. 3, 905 [252].**

Reading Unit for Ice Calorimeter. *O. E. Zakurenko and V. M. Kuz'michev.* **1978, No. 6, 1643 [167].**

Installation for the Measurement of the Hall emf and of the Magnetoresistance of Low-Resistance Materials by the Amplitude-Modulation Method. *E. V. Kolla and L. N. Luk'yanova.* **1979, No. 1, 229 [215].**

Heat Capacity of Ferroelectrics Measured by the Dynamic Method at High Hydrostatic Pressures. *V. A. Chernenko, I. N. Polandov, and V. K. Novik.* **1979, No. 1, 237 [222].**

Calorimeter for the Measurement of the Energy Stored in Materials with Low Thermal Diffusivity. *V. G. Vologin, A. I. Kozlov, S. F. Dubinin, Yu. T. Chukalkin, B. N. Goshchitskii, V. D. Parkhomenko, V. V. Petrov, and S. K. Sidorov.* **1979, No. 1, 241 [225].**

Equipment for Measuring Thermally Modulated Spectra of Metals and Alloys. *A. I. Golovashkin and A. L. Shelekhov.* **1980, No. 5, 1289 [216].**

Setup for Determining the Equation of State of Alkali Metals at High Temperatures. *V. F. Kozhevnikov and P. N. Ermilov.* **1982, No. 1, 238 [209].**

Measurement of Electrical Conductivity and Hall Effect in High-Resistance Materials by the Two-Electrometer Method. *A. S. Vedeneev.* **1982, No. 3, 746 [206].**

An Automatic Reading Device for an Ice Calorimeter. *O. E. Zakurenko and V. M. Kuz'michev.* **1984, No. 5, 1292 [224].**

A Cell for Measuring the Pyroelectric Effect at 90-900°K. *N. E. Skorokhodov.* **1985, No. 2, 472 [192].**

An Experimental Study of the Electrical Conductivity of Mercury in the Transcritical Region. *M. M. Korsunskii.* **1985, No. 2, 478 [197].**

Cell for Study of Mercury at High Temperatures and Pressures. *M. M. Korsunskii.* **1986, No. 3, 728 [204].**

Automated Apparatus for Measurement of Complex Thermophysical Characteristics of Polymers by the Temperature-Wave Method. *Yu. I. Polikarpov and V. G. Burtsev.* **1988, No. 1, 224 [193].**

Apparatus for Measurement of Thermal Conductivity of Small Specimens. *A. V. Inyushkin, A. N. Taldenkov, and V. V. Florent'ev.* **1988, No. 3, 783 [221].**

Thermostatically Controlled Unit for Measurement of Pyroelectric Coefficient at Temperatures of 1.3-80 K. *V. N. Novikov, V. K. Novik, N. D. Gavrilova, and G. M. Kaleva.* **1988, No. 6, 1587 [187].**

Cells for Measurement of Electrical Conductivity of Zeolite Microcrystals. *V. N. Markov and V. G. Solov'ev.* **1990, No. 5, 1230 [232].**

16.2. Measurement of dielectric characteristics, fields in dielectrics, contact and surface potentials

Time Domain Spectroscopy of Dielectrics (Survey). *Yu. D. Fel'dman, Yu. F. Zuev, and V. M. Valitov.* **1979, No. 3, 611 [5].**

Manipulator for Measurement of Contact Potential Difference by the Kelvin Method. *V. L. Korotkikh, A. D. Korinfskii, and A. L. Musatov.* **1977, No. 2, 562 [211].**

Device for Measuring the Distribution of Surface Electric Potential. *S. Yu. Sakalauskas and A. T. Dobrovol'skis.* **1978, No. 3, 730 [165].**

Probing of Electric Fields by Electron Reflection. *O. V. Andreev, O. B. Evdokimov, and B. A. Kononov.* **1978, No. 5, 1407 [227].**

Measurement of Electric Fields on Both Sides of a Dielectric Plate by the Dynamic Capacitor Method. *S. G. Boev and G. I. Sigaev.* **1980, No. 1, 249 [240].**

Measurement of Thermally Stimulated Changes of Contact Potential Difference. *V. S. Lysenko and V. I. Turchanikov.* **1980, No. 3, 805 [240].**

Measurement of Dielectric Permeability in a Waveguide Interferometer. *D. G. Mamedov.* **1980, No. 5, 1293 [219].**

Technique for Determining the Refractive Index of Semiconductors and Dielectrics. *N. K. Kiseleva and B. T. Kolomiets.* **1981, No. 1, 263 [248].**

Meter for Measurement of Dielectric Surface Charge Density. *R. Z. Bakhtizin, S. S. Gots, and B. K. Sushko.* **1981, No. 1, 266 [250].**

Setup for Electrophysical Studies of Dielectrics. *O. I. Buzhinskii, V. A. Butenko, S. I. Krysanov, V. V. Lopatin, and V. P. Chernenko.* **1981, No. 3, 819 [236].**

Light-Probe Measurement of Electric Field Strength in Dielectrics Charged by Electron Bombardment. *S. G. Boev and G. I. Sigaev.* **1981, No. 4, 1054 [216].**

Experimental Setup for Measuring Contact Potential Differences. *V. N. Fonov, N. N. Glazunov, B. A. Kalinin, and A. P. Zayarnyi.* **1981, No. 6, 1530 [183].**

Measurement of the Space Charge in Dielectrics Irradiated with a Pulsed Electron Beam. *Yu. A. Solov'ev and N. I. Yagushkin.* **1982, No. 3, 732 [194].**

A Device for Measuring the Electrical Potential in an Insulator. *Yu. P. Gorbachev, K. A. Dergobuzov, V. I. Dovgii, O. B. Evdokimov, A. V. Samoilik, Yu. A. Solov'ev, and N. I. Yagushkin.* **1982, No. 4, 1015 [213].**

Determining the Permittivity of a Medium from the Extremum Value of the Electric Field Potential. *V. G. Nalivaev.* **1982, No. 5, 1169 [114].**

Apparatus for Probing Electric Fields in Dielectric Films by the Albedo Method. *O. V. Andreev, Yu. I. Sapozhkov, O. B. Evdokimov, B. A. Kononov, and N. I. Yagushkin.* **1982, No. 6, 1510 [175].**

Apparatus to Measure the Complex Dielectric Permittivity at Infralow Frequencies. *R. Z. Bakhtizin, S. S. Gots, and A. M. Kondrat'ev.* **1983, No. 1, 133 [115].**

Automatic System for Determining the Region of Charge Transport in a Dielectric. *V. S. Lysenko and V. I. Turchanikov.* **1983, No. 1, 194 [160].**

Meter for the Loss Angles of Insulators Based on K155 Microcircuits. *V. V. Mikhnevich, I. P. Potapenko, and V. V. Segodnik.* **1983, No. 3, 737 [223].**

Apparatus for Acoustic Probing of the Space Charge Field in Solid Dielectrics. *S. M. Lebedev, V. F. Vazhov, and V. Ya. Ushakov.* **1983, No. 6, 1453 [183].**

An Automated Surface-Potential Meter. *N. M. Aleinikov and S. P. Gribkov.* **1984, No. 2, 487 [213].**

Meter for the Distribution of Surface Potential. *N. T. Yunda.* **1984, No. 4, 1016 [201].**

Measurement of Electric Potential Distribution in Dielectric Films. *V. I. Veretel'nik, B. A. Kononov, N. K. Ryzhakava, and N. I. Yagushkin.* **1984, No. 4, 1019 [204].**

A Device to Measure the Parameters of Planar Seignette-Electric Microcapacitors in the Uhf Range. *M. I. Gubler, V. N. Keis, and V. A. Yanchurov.* **1984, No. 5, 1247 [184].**

Apparatus for Microwave Study of Dielectric Properties of Ferroelectrics at Low Temperatures and with Uniaxial Compression. *G. V. Belokopytov, I. V. Ivanov, N. E. Lebedev, and A. A. Kharin.* **1985, No. 3, 654 [139].**

Recording of Derivative of Scanning-Probe Signal. *Z. N. Adamyan, M. G. Azaryan, V. M. Arutyunyan, and D. K. Parsamyan.* **1985, No. 3, 694 [174].**

Apparatus for Measuring Dielectric Parameters by Pulse and Fluctuation Methods. *V. A. Goncharov.* **1985, No. 4, 960 [203].**

Apparatus for Studying Polarization Reversal of Ferroelectrics with Charge Control. *V. I. Gurtovoi, S. G. Gakh, and V. Z. Borodin.* **1985, No. 4, 984 [224].**

Determination of Electric-Field Potential in Solid Dielectrics. *S. G. Boev.* **1985, No. 5, 1192 [184].**

Use of Torsion Pendulum for Measurement of Dielectric Losses. *V. P. Mitrofanov and O. I. Ponomareva.* **1986, No. 5, 1190 [186].**

Low-Frequency Pulse Dielectric Spectrometer. *V. L. Odivanov and Yu. A. Gusev.* **1986, No. 6, 1365 [114].**

Electric-Field Diagnosis in Dielectrics by Irradiation with Heavy Charged Particles. *S. G. Boev and V. A. Paderin.* **1987, No. 5, 1230 [191].**

Vibrator for Contact-Potential-Difference Meter with Small Probe Diameter. *A. K. Belov, V. V. Kryachko, and A. V. Mazhulin.* **1988, No. 1, 236 [204].**

Local Measurement of Electrical Parameters of Ferrite Specimens. *Yu. G. Makeev, A. V. Strizhachenko, V. A. Korobkin, and L. P. Motornenko.* **1988, No. 4, 921 [85].**

Device for Acoustic Probing of Electric Fields in Solid Dielectrics. *S. M. Lebedev, O. S. Gefle, A. N. Kuz'min, and V. Ya. Ushakov.* **1988, No. 6, 1560 [165].**

Device for Determination of the Electrical Parameters of Dielectrics. *V. I. Kiselev, R. M. Sultanaev, and M. V. Usol'tsev.* **1990, No. 4, 864 [136].**

Apparatus for Study of Dependence of Contact Potential Difference of Solids on Thickness of Adsorbed Layer of Molecules on Their Surface. *Yu. I. Asalkhanov, K. N. Ivanov, and D. Ts. Shirapova.* **1991, No. 1, 169 [167].**

Capacitive Sensor for Measurement of Electric Field Excited by Ionizing Radiation. *V. O. Oleinik.* **1991, No. 1, 212 [203].**

Apparatus for Acoustic Probing of Electric Fields in Dielectric Materials. *V. I. Verkhoturov, O. S. Grafodatskii, V. K. Zhukov, V. Yu. Ekimenko, A. V. Kargapol'tsev, V. N. Rudenko, and V. I. Simanchuk.* **1991, No. 2, 438 [186].**

Device for Measurement of Dielectric Properties of Materials at Low and Infralow Frequencies. *V. I. Kiselev and R. M. Sultanaev.* **1991, No. 2, 442 [190].**

Synchronized Picosecond Laser and Subnanosecond Electron Beams for Excitation of Transparent Dielectrics. *B. P. Aduev, D. I. Vaisburd, A. A. Kondrashov, and P. A. Pal'yanov.* **1991, No. 3, 646 [155].**

Infrasonic Dielectric Spectrometer. *A. A. Belov and V. V. Bonch-Bruevich.* **1991, No. 3, 662 [170].**

Device for Determination of Dielectric Parameters of Materials at Low and High Frequencies. *V. I. Kiselev and R. M. Sultanaev.* **1991, No. 3, 665 [172].**

Contactless Measurement of Volt–Ampere Characteristics by Charge Injection in Dielectrics. *V. P. Novozhilov and A. P. Naimushin.* **1991, No. 3, 686 [192].**

Cells for Study of Electrochemical Properties and Surface Modification of Polymer Insulators. *A. A. Pud, G. S. Shapoval, and O. É. Mikulina.* **1991, No. 4, 974 [213].**

16.2.1. Piezoelectrics

Cell for the Measurement of Electromechanical Properties of Solid Dielectrics. *M. P. Tonkonogov, V. A. Mironov, V. I. Bulakh, and L. I. Ligai.* **1978, No. 4, 1136 [267].**

Device for Suppressing Impact Noise during Measurement of the Parameters of Piezoelectric Transducers. *G. A. Tarasov and V. M. Timofeev.* **1979, No. 2, 497 [189].**

Setup for Measuring Parameters of Piezoelectric Crystals in the 4.2–850°K Temperature Range. *I. A. Dan'kov, G. S. Pado, and V. G. Skryabin.* **1982, No. 1, 234 [205].**

High-Voltage Amplifier and Pulse Generator for Checking the Parameters of Piezoelectric Transducers. *A. V. Averkin, A. Yu. Dovgalevskii, and V. I. Ul'yanov.* **1984, No. 2, 395 [131].**

Use of PKR Piezoelectric Ceramic Materials in Low-Temperature Scanning Tunneling Microscopes. *A. P. Volodin and A. E. Panich.* **1989, No. 5, 1187 [190].**

Simple Meter for Electrostriction and Piezoelectric Constants of Ferroelectrics. *A. G. Luchaninov, A. V. Vladimtsev, B. N. Chernykh, A. A. Shevchenko, A. V. Shil'nikov, and L. A. Shuvalov.* **1990, No. 1, 231 [213].**

Data-Acquisition System for Study of Electromechanically Active Materials and Transducers. *S. M. Kaplun, E. A. Ruben, and A. M. Shtern.* **1991, No. 3, 649 [158].**

Device for Thickness Finishing of Piezoelectric Plates. *F. D. Mamatdzhanov and Kh. Z. Tashpulatov.* **1991, No. 3, 701 [206].**

16.3. X-Ray diffraction

16.3.1. X-Ray apparatus

Installation for High-Temperature X-Ray–Thermographic Analysis. *I. D. Berkhoer, I. N. Eres'ko, V. M. Ol'shanskii, V. V. Oryabinskii, and A. G. Kholodnyi.* **1977, No. 3, 852 [210].**

Multicrystal X-Ray Spectrometer. *V. D. Skupov.* **1978, No. 2, 517 [236].**

X-Ray Interferometer Based on Small-Angle Scattering Apparatus. *T. D. Sotnikova and L. A. Smirnov.* **1978, No. 5, 1394 [215].**

Apparatus for Multiple-Element X-Ray Fluorescence Analysis Using a Semiconductor Detector and an X-Ray Tube. *A. V. Andreev and A. K. Cheburkin.* **1978, No. 5, 1396 [217].**

X-Ray Installation for the Registration of Rapid Processes. *E. P. Evseenko, E. L. Zil'berbrand, and G. S. Pugachev.* **1979, No. 1, 223 [210].**

Multichannel, High-Speed, X-Ray Spectrometer. *V. A. Bondarenko, I. I. Magda, S. I. Naisteter, S. S. Pushkarev, and G. V. Skachek.* **1979, No. 2, 575 [261].**

Small Spectrometer for Excitation Potentials of Soft X-Rays. *I. A. Brytov, B. E. Blekher, and G. E. Belinskii.* **1979, No. 4, 1154 [251].**

X-Ray Spectrometer for Examining Structural Defects in Single Crystals. *V. D. Skupov.* **1981, No. 1, 240 [225].**

A Compact Pulsed X-Ray Machine Rita-150. *A. S. El'chaninov, F. Ya. Zagulov, and V. G. Shpak.* **1982, No. 5, 1256 [181].**

512-Channel X-Ray DARK-2.0 Diffractometer with a Mosaic Detector for Investigating Protein Single Crystals. *B. K. Vainshtein, N. I. Komyak, F. P. Reznikov, D. A. Goganov, D. M. Kheiker, A. V. Mirenskii, A. Z. Pliss, O. I. Ageev, and V. M. Shul'meister.* **1982, No. 6, 1492 [160].**

X-Ray Television Unit for Observing Topographic Diffraction Patterns. *V. N. Ingal, Yu. G. Myasnikov, N. I. Komyak, Yu. K. Sukonnikov, and E. A. Belyaevskaya.* **1983, No. 3, 698 [188].**

Crystal-Diffraction Spectrometer with Proton Excitation of X-Ray Fluorescence. *V. B. Andrienko, K. V. Anisovich, A. N. Dyumin, V. M. Kuz'min, V. M. Lebedev, A. V. Litinskii, and L. A. Safonov.* **1983, No. 3, 701 [191].**

Two-Crystal X-Ray Diffractometer for the Investigation of the Surface Properties of Materials. *A. L. Andrushchenko, V. F. Vakorin, V. S. Parkhomenko, I. R. Tagirov, and V. N. Shchemelev.* **1984, No. 1, 215 [195].**

Apparatus for Multielement Fluorescent X-Ray Analysis on Small Samples. *A. K. Cheburkin, K. S. Proskura, and A. V. Andreev.* **1984, No. 3, 755 [208].**

Fraks Camera for Monochromatic Small-Angle Diffractometry with Synchrotron γ Rays. *V. N. Korneev, V. S. Gerasimov, A. M. Shamarov, and A. A. Vazina.* **1984, No. 5, 1243 [180].**

Vacuum X-Ray Spectrometers with Position-Sensitive Detectors. *V. E. Dolgikh, V. M. Cherkashenko, E. Z. Kurmaev, D. A. Goganov, E. K. Ovchinnikov, Yu. M. Yarmoshenko, and T. P. Toporkova.* **1985, No. 1, 207 [186].**

Semiautomatic X-Ray Spectrometer for Diffraction Studies with Total External Reflection. *A. L. Golovin, Yu. F. Dmitriev, and D. V. Novikov.* **1985, No. 1, 211 [190].**

An X-Ray Absorption Microscope. *Yu. B. Glushanok, V. G. Lyuttsau, V. A. Gushchin, V. P. Efanov, M. R. Kogan, and V. I. Shaenzon.* **1985, No. 2, 474 [193].**

Rejecting Diffractometer with Linear Coordinate Detector for Single Crystals. *O. I. Ageev, L. P. Glazova, D. A. Goganov, B. V. Kazanskii, and B. M. Reizis.* **1985, No. 4, 965 [208].**

X-Ray Spectrometer for Study of Inelastic Scattering. *A. G. Lyubimov, V. A. Bushuev, and N. N. Lobanov.* **1985, No. 5, 1177 [171].**

High-Current Pulse X-Ray Apparatus for Dynamic Radiography. *A. A. Altukhov, E. I. Bichenkov, E. A. Gusev, E. I. Pal'chikov, and V. L. Ovsyannikov.* **1986, No. 1, 218 [189].**

Apparatus for Study of Extrinsic Photoeffect with X-Ray Diffraction. *P. A. Aleksandrov, E. E. Bresler, D. A. Bugrov, V. V. Zashkvara, R. M. Imamov, E. M. Pashaev, and V. S. Red'kin.* **1986, No. 1, 229 [198].**

Automated Apparatus with Multiple Angular Scanning for Study of Secondary Processes in X-Ray Diffraction in Crystals. *V. Ya. Goncharov, M. A. Polikarpov, V. A. Chaplanov, and S. S. Yakimov.* **1986, No. 2, 483 [201].**

Diffraction Vacuum X-ray Photoelectron Spectrometer. *M. V. Koval'chuk, Yu. N. Shilin, A. G. Denisov, Yu. M. Gravshin, I. A. Zel'tser, V. M. Lyapin, and R. S. Senichkina.* **1987, No. 3, 715 [191].**

Multihole Pinhole Camera for Observation of Weak Pulsed X-Radiation. *G. F. Karabadzhak, A. V. Kashlyuk, E. L. Kosarev, S. V. Pereverzev, and V. D. Peskov.* **1988, No. 2, 475 [181].**

Automatic Instrument for Study of Structure Distortions of Surface Layers of Perfect Single Crystals. *O. L. Golovin and A. A. Lomov.* **1988, No. 3, 795 [230].**

Contactless Monitoring of Anode Voltage of X-Ray Spectrum Analyzer. *V. Ya. Oginets.* **1989, No. 3, 712 [193].**

Pulsed X-Ray Fluorometer with Nanosecond Resolution. *S. V. Anishchik, V. M. Grigoryants, I. V. Shebolaev, Yu. D. Chernousov, O. A. Anisimov, and Yu. N. Molin.* **1989, No. 4, 813 [74].**

System for Determination of Element-Concentration Depth Profiles from Ion-Induced X-Ray Yield. *A. A. Vlasov and S. M. Blokhin.* **1989, No. 5, 1222 [219].**

Apparatus for Measurement of X-Ray-Luminescence and Optical-Absorption Spectra of Filamentary Alkali-Metal-Halide Crystals. *B. G. Bydtaev, A. A. Gorbachev, and A. M. Romanyuk.* **1990, No. 2, 450 [193].**

Image-Input Device for Digital Television X-Ray Topographic Apparatus. *A. A. Khazanov, F. N. Chukhovskii, and B. V. Shteinbakh.* **1990, No. 3, 567 [85].**

Automated X-Ray Electron Magnetic Spectrometer for the Study of Molten Metals. *D. V. Varganov, V. G. Karpov, O. I. Klyushnikov, V. A. Trapeznikov, and I. N. Shabanova.* **1990, No. 5, 1208 [214].**

Data Transmission from DRON-2 X-Ray Diffractometer to Computer. *V. G. Abramov, N. A. Monov, V. F. Sazonov, and E. A. Chernomorskaya.* **1991, No. 2, 334 [97].**

Kristall-2 Goniometer with Automatic Control System. *V. N. Berezka, V. B. Ganenko, N. G. Golovko, V. G. Gorbenko, V. A. Gushchin, Yu. V. Zhebrovskii, L. Ya. Kolesnikov, V. D. Ovchinnik, A. L. Rubashkin, and P. V. Sorokin.* **1991, No. 3, 681 [188].**

16.3.2. X-Ray sources

Low-Powered Transmission X-Ray Tube for Exciting X-Ray Fluorescence. *V. A. Berdikov, O. I. Grigor'ev, B. S. Iokhin, and G. M. Nikolaenko.* **1978, No. 1, 221 [207].**

Angular Distribution of Intensity and Dose Characteristics of Pulsed X-Ray Tubes with a Thermoemissive Cathode. *V. P. Abramov, A. S. Kuleshov, and V. K. Kuleshov.* **1978, No. 3, 788 [217].**

Sharp-Focus Pulsed X-Ray Tube with Plasma Electron Sources. *F. P. Demidov and A. M. Chestnov.* **1978, No. 4, 1111 [245].**

Raster X-Ray Tube with a Target of the "Shoot-through" Type. *V. A. Gushchin, V. P. Efanov, S. A. Ivanov, and V. G. Lyuttsau.* **1978, No. 6, 1626 [152].**

Generator of X-Ray Radiation Pulses. *P. N. Yarovoi.* **1979, No. 2, 578 [263].**

Effectiveness of Modulation of X-Ray Tubes. *N. S. Zinchenko and V. D. Stasenko.* **1979, No. 3, 829 [200].**

Pulsed X-Ray Sources. *V. A. Belago, V. Ya. Budtsev, and A. S. Filippenko.* **1980, No. 2, 499 [189].**

X-Ray Tubes for Obtaining Circular Laué Diffraction Diagrams. *E. A. Levikov, L. V. Levikova, V. F. Dolzhenko, and V. P. Yashin.* **1980, No. 2, 501 [191].**

Pulsed Generator of Monochromatic X-Rays. *K. A. Zheltov, V. I. Matakov, and A. N. Petrenko.* **1980, No. 5, 1296 [221].**

High-Voltage Unit of a Three-Electrode Short-Pulse X-Ray Generator. *N. V. Belkin, I. N. Khudyakova, V. V. Bogolyubov, and M. Yu. Tarakanov.* **1981, No. 1, 238 [224].**

Effects Resulting in Intensification of Beams of Synchrotron Radiation. *Z. L. Artem'eva, E. M. Moroz, and K. N. Shorin.* **1981, No. 3, 582 [27].**

A Pulse Generator of Monochromatic X-Rays. *K. A. Zheltov, V. I. Matakov, A. N. Petrenko, V. F. Shalimanov, and T. V. Chernyaeva.* **1981, No. 5, 1295 [183].**

Vacuum X-Ray Diode. *A. S. Ganeev, A. L. Zapvsov, I. M. Izrailev, V. P. Nikitin, V. A. Podgornov, and N. A. Khavronin.* **1982, No. 3, 725 [188].**

MIR – A High-Power X-Ray Source. *E. V. Znatnov, V. D. Korolev, V. V. Matveev, V. V. Prut, V. P. Smirnov, and A. S. Chernenko.* **1985, No. 1, 203 [183].**

Electron Gun for Generation of Ultrasoft X-Rays. *G. F. Karabadzhak and G. P. Prudkovskii.* **1986, No. 1, 223 [193].**

Measurement of Spectrum of X-Radiation Generated in Diode of High-Current Accelerator. *A. Yu. Kropotov, O. N. Morgun, and V. V. Chernyi.* **1987, No. 2, 255 [15].**

Automatic Delay Controller. *L. N. Lozovoi.* **1987, No. 2, 453 [182].**

Compact Plasma Source of Soft X-Rays. *R. B. Baksht, B. A. Kablambaev, V. A. Poskonin, and N. A. Ratakhin.* **1988, No. 1, 221 [190].**

Controlled High-Voltage Converter for Pulsed X-ray Sources. *L. N. Lozovoi and E. I. Sindalovskii.* **1989, No. 2, 470 [190].**

VIRA-1.5M Compact Bremsstrahlung Generator with Dose Rate of 5×10^7 A/kg. *Yu. A. Kotov, S. Yu. Sokovnin, and A. L. Filatov.* **1990, No. 2, 399 [149].**

Bremsstrahlung Converter with Increased Quantum Yield at <100 keV. *E. E. Domanov, O. N. Morgun, and V. V. Chernyi.* **1991, No. 2, 272 [43].**

16.3.3. X-Ray detectors

X-Ray Radiation Detectors on the Basis of Charge-Coupled Devices (Review). *V. I. Korzh, V. E. Kuskov, and V. Ya. Stenin.* **1982, No. 3, 515 [7].**

Operational Possibilities for Si(Li) X-Ray Spectrometers at Temperatures from –90°C to –60°C. *N. Ya. Sedov, V. A. Kostin, N. E. Mazurik, and A. K. Pustovoit.* **1979, No. 3, 832 [202].**

Cadmium Telluride Detectors in X-Ray Fluorescence Analysis. *V. S. Ponomarev, V. A. Meier, O. A. Matveev, A. Kh. Khusainov, V. D. Kulikov, and A. A. Tomasov.* **1980, No. 1, 237 [228].**

Multichannel X-Ray Register. *V. M. Murugov, V. I. Pankratov, V. N. Petrakov, and A. V. Senik.* **1980, No. 2, 504 [194].**

Effect of Microdefects on the Characteristics of Si(Li) X-Ray Detectors. *V. P. Gimanov, D. A. Goganov, V. A. Kostin, N. E. Mazurik, S. R. Novikov, A. K. Pustovoit, N. Ya. Sedov, Z. F. Smirnova, and L. A. Kholodova.* **1980, No. 3, 779 [217].**

Multisectional Gas Counter for Measuring the Spatial Distribution, Polarization, and Spectrum of Ultrasoft X-Ray Radiation. *G. D. Bogomolov and V. D. Peskov.* **1981, No. 2, 514 [212].**

Silicon–Germanium Alloy Detectors for Spectrometry of Hard X-Rays. *J. Bacso, G. Kalinka, J. Keleti, N. E. Mazurik, T. I. Pirozhkova, A. K. Pustovoit, and N. Ya. Sedov.* **1981, No. 2, 524 [221].**

Sealed-Off Proportional Counters for X Rays in the Region 1.5-13 Å. *D. A. Goganov, B. S. Lozinskii, A. P. Ponomarev, K. K. Smirnov, and V. N. Shchemelev.* **1981, No. 5, 1299 [187].**

Dependence of the Gamma of UF-VR Photographic Film on the Wavelength of X Rays. *M. A. Mazing, V. V. Mol'kov, A. P. Shevel'ko, and M. R. Shpol'skii.* **1981, No. 5, 1301 [188].**

Multiwire X-Ray Counter with High Energy Resolution. *G. F. Karabadzhak and V. D. Peskov.* **1981, No. 6, 1520 [174].**

Proportional Gas Counter for Measuring Photoemission under X-Ray Diffraction Conditions. *M. V. Koval'chuk, S. S. Yakimov, R. M. Imamov, N. N. Faleev, Yu. N. Shilin, K. V. Serbinov, and V. Ya. Goncharov.* **1981, No. 6, 1532 [185].**

Sensitivities of UF-VR and UFSh-4 Photographic Films in the 1.35-17.4-keV Quantum Energy Range. *A. L. Zapysov, I. M. Izraelev, V. A. Podgornov, and N. A. Khavronin.* **1982, No. 1, 213 [188].**

Upgraded Soft X-Ray Detector. *Yu. A. Tsirlin, L. B. Zagarii, L. S. Zubenko, A. L. Lifits, and E. A. Bugai.* **1982, No. 1, 241 [212].**

Multichannel Proportional Detector for DARK-2.0 X-Ray Diffractometer. *D. A. Goganov, T. P. Toporkova, B. S. Lozinskii, I. B. Klochkova, and Ya. K. Zaraeva.* **1982, No. 2, 482 [183].**

A Sensitive Large-Area Calorimeter for Measuring the Energy of Soft X Rays of a Laser Plasma. *V. A. Boiko, D. A. Vel'mushkin, and A. Ya. Faenov.* **1982, No. 3, 727 [189].**

Multiwire Counter for the Ultrasoft X-Ray Region with Enhanced Energy Resolution. *G. F. Karabadzhak and V. D. Peskov.* **1982, No. 3, 730 [191].**

Microdefects in X-Ray Radiation Detectors. *V. P. Gimanov, L. A. Kholodova, D. A. Goganov, E. V. Blyakher, V. V. Korolev, and E. V. Solov'eva.* **1982, No. 4, 1022 [218].**

Multifilament Counter with a 5% Energy Resolution for 5.9 KeV Photons. *V. D. Peskov and E. R. Podolyak.* **1982, No. 6, 1498 [165].**

High-Frequency Power Transistor as a Pulsed X-Ray Detector. *V. V. Zykov and V. V. Sil'vestrov.* **1982, No. 6, 1502 [168].**

Nanosecond Frame X-Ray Image Converter with a Microchannel Plate. *L. E. Aranchuk, I. K. Aivazov, S. L. Bogolyubskii, G. S. Volkov, I. N. Zaidel', and G. I. Perevodchikova.* **1983, No. 1, 190 [157].**

Calibration of a Multichannel X-Ray Analyzer over the Range 0.15-10 keV. *A. T. Altyntsev, V. I. Krasov, N. V. Lebedev, V. L. Papernyi, and V. G. Simonov.* **1983, No. 6, 1446 [177].**

A Sealed Gas-Filled Electroluminescence Detector of X Rays with a Focusing System. *D. A. Goganov, A. A. Schultz, and V. B. Elkind.* **1984, No. 2, 478 [206].**

Measurement of the Fast Component of X-Ray Luminescence Attenuation of Commercial Screens in Pulsed Excitation with the PIR-100 Apparatus. *I. L. Bronevoi, E. A. Gusev, V. L. Ovsyahnikov, and E. I. Pal'chikov.* **1984, No. 2, 481 [208].**

Time and Frequency Characteristics of Scintillation and Semiconductor X-Ray Detectors. *M. V. Zelepukhin, S. V. Krupin, E. A. Meleshko, A. G. Morozov, A. I. Chechin, A. V. Voronin, and A. D. Sokolov.* **1984, No. 6, 1360 [56].**

Wire Chamber for Recording Ultraviolet and X Radiation with Resolution of ~50 × 80 μm. *V. D. Peskov.* **1985, No. 3, 702 [181].**

Proportional Detector for Energy Analysis of Photoelectrons with X-Ray Diffraction. *E. Kh. Mukhamedzhanov and Le Kong Kui.* **1985, No. 3, 704 [183].**

High-Value Low-Noise Resistors for Spectrometers with Cooled Semiconductor Detectors. *S. A. Baldin, Ch. Zhargal, G. N. Zorin, T. Laskus, B. P. Osipenko, A. V. Revenko, and T. I. Ryakhovskaya.* **1985, No. 4, 870 [125].**

Multisection Gas Counters for Spectral Studies of Weak Pulse X-Radiation. *G. D. Bogomolov, N. A. Kravchenko, V. D. Peskov, and E. R. Podolyak.* **1985, No. 4, 968 [211].**

Afterglow of Scintillation Materials for X-Ray Tomography. *V. D. Ryzhikov, O. S. Shapiro, S. M. Ignatov, and V. I. Silin.* **1986, No. 4, 924 [155].**

Combination X-Ray Detector with Scintillator and Silicon Photodiode. *A. Ya. Gliberman, I. I. Kovalev, A. I. Leichenko, G. A. Chetverikova, and T. A. Borisova.* **1987, No. 1, 216 [197].**

One-Dimensional Array Based on Si(Li) Detectors for Scanning X-Ray Introscopes. *A. A. Petushkov, S. I. Musyankov, U. V. Shchebiot, V. P. Kaminskii, M. K. Rozhdestvenskaya, and V. P. Zuev.* **1987, No. 2, 449 [179].**

Determination of the Dynamic Nonlinearity of Semiconductor and Combined Detectors for Computer-Assisted Tomography. *A. G. Tur'yanskii, V. V. Kon'kov, and O. P. Fedoseeva.* **1987, No. 3, 712 [189].**

Detector of Soft X-Rays. *S. A. Dan'ko and O. N. Yartseva.* **1988, No. 2, 482 [186].**

Noise Characteristics of Field-Effect Transistors for X-Ray Detectors. *V. V. Gostilo.* **1990, No. 3, 696 [195].**

Arc-Shaped Position-Sensitive X-Ray Detector with Strip Anode. *V. D. Peshekhonov.* **1990, No. 5, 1212 [217].**

Gas Proportional Counter for Measurement of Yield of Photoelectrons Excited by Standing X-Ray Wave under Conditions of Multiwave Diffraction. *M. V. Koval'chuk, A. M. Nikolaenko, A. S. Semiletov, I. Yu. Kharitonov, and Yu. N. Shilin.* **1991, No. 3, 669 [176].**

Study of Energy Sensitivity of Thermoluminescence Detectors in X-Ray Regions. *V. F. Zinchenko, Yu. B. Zverev, V. M. Likholat, and V. V. Timofeev.* **1991, No. 3, 678 [185].**

Soft-X-Ray Calorimeter. *V. S. Pak and S. A. Chistyakov.* **1991, No. 4, 958 [201].**

16.3.4. Attachments for x-ray studies

Low-Power High-Voltage Devices for Supplying X-Ray Equipment. *A. G. Lyapin and Yu. N. Semenov.* **1977, No. 1, 218 [190].**

Apparatus Based on GUR-5 Goniometer for Measuring Small-Angle X-Ray Scattering. *N. P. Matsibora and A. Sh. Goikhman.* **1977, No. 3, 859 [216].**

Universal Chamber for Measurement of X-Ray and Electric Characteristics of High-Resistance Semiconducting Layers. *V. A. Izvozchikov, V. V. Laptev, and Yu. Kh. Palanduzyan.* **1977, No. 4, 1211 [264].**

High-Temperature Chamber Attachment for X-Ray Diffractometer. *V. V. Pet'kov, V. G. Epifanov, A. V. Zavilinskii, V. E. Is'yanov, A. V. Polenur, V. P. Podoroshnii, and I. V. Nikishin.* **1978, No. 1, 251 [234].**

Sealed Cell for Examining Powder Specimens on an X-Ray Diffractometer. *I. A. Belitskii and G. P. Valueva.* **1978, No. 2, 537 [254].**

X-Ray Diffractometer Attachment for Controlling Structural Imperfections in Large Crystals. *G. I. Antonenko, A. N. Berletov, and E. I. Raikhel's.* **1978, No. 3, 802 [230].**

Modernization of the Scanning Block of the DRON-1 X-Ray Diffractometer. *Yu. N. Nazarov and Yu. G. Fedorenko.* **1978, No. 6, 1662 [185].**

X-Ray Comparator for Accurate Measurement of the Cutoff Angle of a Piezoelectric Crystal. *Yu. R. Blyashko, A. D. Ginzburg, V. N. Stasevich, and Yu. A. Terman.* **1979, No. 5, 1436 [225].**

Chamber for Investigating the Reflection and Scattering of X Rays in the Ultrasoft Region. *I. A. Brytov, A. Ya. Grudskii, E. A. Obolenskii, and A. F. Panov.* **1979, No. 6, 1615 [125].**

Camera for X-Ray Studies in Static Magnetic Fields up to 50 kOe. *É. A. Zavadskii, V. I. Kamenev, B. Ya. Sinel'nikov, and V. V. Permyakov.* **1980, No. 1, 233 [224].**

Adjustment Indicator for the Mineral-3 Microprobe Analyzer. *S. A. Efimenko, Yu. V. Polkovnikov, and A. G. Goncharov.* **1980, No. 1, 241 [232].**

Attachment to X-Ray Diffractometer for Compressibility Measurements. *V. I. Kamenev, V. Yu. Kameneva, and N. A. Romanova.* **1980, No. 1, 274 [263].**

Device for Identifying X-Ray Quanta Backscattered at the Boundary of Separation of Two Media. *F. L. Gerchikov and V. D. Kosarev.* **1980, No. 3, 782 [219].**

Instrument for Measuring Dependence of Intensity of X Rays on Angle of Incidence of Electrons on the Specimen. *L. V. Kazakov and G. B. Édel'shtein.* **1980, No. 5, 1299 [224].**

A Device for Examining the Luminescence Kinetics of an Object in a Nonstationary X-Ray Field. *F. L. Gerchikov, V. D. Kosarev, A. I. Levitin, and S. P. Frumkin.* **1981, No. 2, 523 [219].**

Automatic Stability Checking for a DRON-2 Diffractometer. *Kh. K. Saks, and A. A. Khaav.* **1981, No. 2, 549 [245].**

Automatic Reflection Location with X-Ray Diffractometers. *D. M. Teplit-skii and Yu. F. Titovets.* **1981, No. 2, 550 [246].**

Low-Temperature Attachment to X-Ray Diffractometers. *A. I. Prokhvatilov and V. V. Prytkin.* **1981, No. 4, 1085 [243].**

Holder for Flat Specimens for an X-Ray Diffractometer. *O. K. Kolerov, A. N. Logvinov, V. G. Skryabin, and V. D. Yushin.* **1981, No. 4, 1087 [245].**

Stabilization of the Angles in the X-Ray Optics of the DTS-1 Double-Crystal Diffractometer. *V. I. Kushnir and E. V. Suvorov.* **1981, No. 5, 1297 [185].**

Simple Laser Light Source for Microscopes. *V. V. Kalinin and V. I. Solunskii.* **1982, No. 3, 774 [228].**

A Stabilized Power Supply for a BKh-3 X-Ray Tube. *S. M. Mikhailov.* **1982, No. 5, 1261 [185].**

Large-Angle Photographic Attachment for Small-Angle KRM-1 X-Ray Apparatus. *V. V. Vorona and T. M. Gritsenko.* **1983, No. 1, 226 [183].**

Automation of the Control of the DRON-2 Diffractometer. *Kh. K. Saks and A. A. Khaav.* **1983, No. 2, 459 [199].**

Use of a Shch68000K Printer in a DRON-2 Diffractometer. *O. K. Kolerov, A. N. Logvinov, M. I. Mishin, V. G. Skryabin, and V. D. Yushin.* **1983, No. 3, 736 [222].**

Apparatus for Visualizing Laue and Powder Patterns. *V. N. Ingal, Yu. G. Myasnikov, N. I. Komyak, Yu. K. Sukonnikov, and E. A. Belyaevskaya.* **1983, No. 4, 968 [203].**

Interface for Matching a DRON-2.0 X-Ray Diffractometer with a Computer. *A. M. Avrutik, G. F. Voronin, A. P. Karpenko, A. S. Efremov, I. A. Ishmuratov, and G. A. Ryazankin.* **1983, No. 6, 1311 [58].**

Computer-Controlled "Stearat" X-Ray Spectrometer. *V. E. Dolgikh, V. M. Cherkashenko, and E. Z. Kurmaev.* **1983, No. 6, 1314 [60].**

An Attachment for Investigating the Photoemission of Electrons under X-Ray Laue-Diffraction Conditions. *D. A. Bugrov, R. M. Imamov, and E. M. Pashaev.* **1984, No. 2, 475 [203].**

Widerange Current-Code Converter for a Scanning X-Ray Tomograph. *E. A. Andreev, V. K. Basenko, K. G. Kosharskii, S. A. Pshinichnyi, M. I. Skopyuk, S. P. Sit'ko, and V. A. Shevchenko.* **1984, No. 4, 881 [88].**

Device for Biaxial Bending of Specimen in X-Ray Optical Research. *V. A. Vogman and V. I. Kushnir.* **1984, No. 4, 1041 [222].**

Low-Temperature Attachment to X-Ray Diffractometer for Study of Single-Crystal Tensile Deformation. *M. Yu. Lavrenyuk and N. Ya. Minina.* **1985, No. 1, 217 [196].**

Specimen-Deformation Machine for X-Ray Diffractometers. *G. E. Lyakh, A. I. Zubkov, and A. F. Belokon'.* **1986, No. 1, 226 [195].**

Device for Producing High-Accuracy X-Ray Diffraction Curves in Grazing Geometry. *E. A. Kondrashkina and A. L. Golovin.* **1986, No. 1, 234 [202].**

Attachment to X-Ray Diffractometer for Studies at Temperatures from -120 to +500°C. *O. K. Kolerov, M. I. Mishin, V. G. Skryabin, M. F. Kalyshenko, A. N. Logvinov, and V. D. Yushin.* **1986, No. 5, 1227 [218].**

Heating Chamber for a Single-Crystal Diffractometer. *N. G. Leont'ev and E. G. Fesenko.* **1987, No. 3, 742 [215].**

Attachment to DRON X-Ray Diffractometers. *B. K. Barakhtin and A. M. Chistyakov.* **1987, No. 4, 1005 [222].**

Spectrometer Attachment to Dron-3 X-Ray Diffractometer for Study of Structure in Immediate Vicinity of Atoms in Crystalline and Disordered Systems. *A. T. Shuvaev, B. Yu. Khel'mer, and T. A. Lyubeznova.* **1988, No. 3, 800 [234].**

Dynamic Control of Crystal Position in Long-Term X-Ray Diffraction Experiments. *E. Kh. Mukhamedzhanov, A. A. Bzheumikhov, and D. A. Bugrov.* **1988, No. 6, 1574 [175].**

Vacuum Goniometer for Study of External Photoelectric Effect under Conditions of X-ray Diffraction. *D. A. Bugrov and E. M. Pashaev.* **1989, No. 1, 227 [199].**

X-Ray Attachment with Four Degrees of Freedom for Study of Curvilinear Surfaces. *B. K. Barakhtin, P. P. Petrov, and A. I. Moskvin.* **1989, No. 4, 981 [219].**

Optimum Position of Collimating Slit in KRM-1 Small-Angle X-Ray Cameras. *A. E. Azriel' and V. A. Vasil'ev.* **1989, No. 6, 1401 [149].**

System for Holding Specimen in Reflecting Position for URT-1 X-Ray Topography Apparatus. *N. I. Sterzhanov, V. N. Nekrasov, I. I. Dod', and E. B. Maslov.* **1991, No. 3, 699 [204].**

16.3.5. Methods of x-ray analysis

Recording of X-Ray Spectra with One- and Two-Dimensional Spatial Resolution by Means of a Spherical Crystal Analyzer. *L. M. Belyaev, A. B. Gil'varg, Yu. A. Mikhailov, S. A. Pikuz, G. V. Sklizkov, A. Ya. Faenov, and S. I. Fedotov.* **1977, No. 3, 855 [212].**

Method of Investigating Degree of Crystallinity of Polymer Films. *V. G. Zadorozhnyi, A. I. Kostrzhitskii, and E. P. Tikhonenko.* **1977, No. 3, 862 [218].**

Comparator for Measurements of X-Ray Photographs and Other Objects. *K. V. Varli, N. P. D'yakonova, and A. M. Rutman.* **1977, No. 4, 1214 [267].**

Elemental Analysis of Biological Specimens by Proton Excitation of Characteristic X-Ray Emission. *A. N. Dedik, A. P. Klyucharev, N. F. Severin, A. G. Strashinskii, N. V. Serykh, N. A. Skakun, G. K. Khomyakov, and A. I. Chumachenko.* **1977, No. 5, 1299 [64].**

Study of Distribution of Structural Imperfections in Silicon Wafers by "Limited Topogram" Technique. *V. N. Leikin, T. A. Mingazin, and V. I. Zelenov.* **1978, No. 1, 224 [209].**

Sensor for Soft X-Ray Spectroscopy of Excitation Potentials. *A. Yu. Mityagin, V. P. Orlov, and N. I. Tumanova.* **1978, No. 1, 229 [214].**

Precise Determinations of Lattice Periods by Axial X-Ray Photography. *D. M. Freik, I. M. Rarenko, Ya. V. Solonichnyi, N. T. Maslyak, and K. V. Tsidylo.* **1978, No. 3, 790 [218].**

Determination of the Positions of the Maxima of Distorted Profiles of Diffraction Lines. *Yu. F. Titovets.* **1978, No. 5, 1401 [222].**

Analyzers of Soft X Rays from Pulsed Sources. *A. T. Altyntsev, V. I. Krasov, I. B. Maksyutov, and V. L. Papernyi.* **1978, No. 6, 1628 [153].**

X-Ray Method of Measuring Small Deformations of Single-Crystal Plates. *V. D. Skupov and V. I. Pashkov.* **1979, No. 1, 225 [212].**

Calibrating the Chamber of an X-Ray Diffractometer for Temperature. *Yu. I. Vesnin and S. P. Zakovryashin.* **1979, No. 6, 1618 [128].**

Registration of X-Ray Spectra in Spectroscopy of Excitation Potentials with the Aid of Microchannel Plates. *V. N. Smirnov and L. P. Kozharinov.* **1980, No. 1, 235 [226].**

Nuclear Emulsion to Measure X-Ray Emission Spectra. *G. I. Kazarinov, V. V. Kushin, V. K. Lyapidevskii, and I. V. Posysaeva.* **1980, No. 4, 1030 [211].**

X-Ray Refraction in Lattice Deformation Assessment. *V. D. Skupov.* **1981, No. 1, 247 [232].**

Recording Remote Fine Structure in X-Ray Absorption Spectra with the DRON-2.0 Diffractometer. *Yu. A. Babanov, V. R. Galakhov, N. V. Ershov, and A. I. Matskevich.* **1981, No. 3, 758 [181].**

Measurement of the Curvature of Single Crystals on a Two-Crystal Spectrometer Using K_α and K_β Beams. *A. G. Noskov, S. I. Stenin, and E. M. Trukhanov.* **1982, No. 2, 479 [181].**

Use of an X-Ray Diffractometer to Investigate Fluorescence Radiation. *B. A. Mel'nik.* **1982, No. 4, 1018 [215].**

Measurement of the Energy Spectrum of Nanosecond X-Ray Pulses. *L. Ya. Morgovskii, B. V. Kagan, and O. S. Marenkov.* **1982, No. 4, 1019 [216].**

Measurement of the Integrated Reflection Coefficients of Gypsum, Quartz, and Mica Crystals for Soft X Rays. *A. L. Zapysov, I. M. Izrailev, V. A. Podgornov, and N. A. Khavronin.* **1982, No. 6, 1504 [170].**

Study of X-Ray Reflections from Crystal Planes of Quartz, LiF, Ge, and Si. *A. Paulers and G. Shchornak.* **1983, No. 2, 462 [202].**

One Photon Spectrometry of Nanosecond X-Ray Pulses. *L. Ya. Morgovskaya and L. S. Ershov.* **1983, No. 3, 703 [193].**

Investigation of Reflecting Characteristics of Bent Crystal Analyzers with the Aid of Laser Plasma. *V. A. Boiko, B. A. Bryunetkin, A. B. Gil'varg, S. A. Pikuz, I. Yu. Skobelev, A. Ya. Faenov, and K. A. Shilov.* **1983, No. 6, 1448 [179].**

An X-Ray Diffractometer Applied to Nondestructive Layerwise Examination. *O. K. Kolerov, A. N. Logvinov, V. G. Skryabin, and V. D. Yushin.* **1984, No. 2, 468 [197].**

Increased Sensitivity in Measurement of Curvature of Single Crystals by X-Ray Spectrometer. *A. G. Noskov and E. M. Trukhanov.* **1985, No. 5, 1180 [173].**

Measurement of Polarization of X-Rays Excited by Accelerated Ions in Crystals. *L. L. Balashova, A. M. Borisov, N. G. Goryaga, S. V. Ermakov, V. P. Petukhov, and E. A. Romanovskii.* **1986, No. 3, 741 [214].**

Determination of Dead Time of Recording Systems of X-Ray Microanalyzers. *N. D. Sorokin and N. S. Yaroslavskaya.* **1987, No. 4, 968 [191].**

Accumulation of Two-Dimensional Data Blocks in Experiments Using Standing X-Ray Waves. *A. Yu. Kazimirov and M. V. Koval'chuk.* **1987, No. 5, 1213 [176].**

Dynamic Stabilization of Angular Position of Crystal in Experiments Using Standing X-Ray Waves. *M. V. Koval'chuk, A. M. Nikolaenko, A. S. Semiletov, and G. A. Gusev.* **1987, No. 5, 1216 [178].**

Estimation of Stability of X-Ray Diffractometers. *G. V. Fetisov, V. T. Markov, I. B. Zastenker, and N. M. Il'yasova.* **1987, No. 5, 1220 [181].**

Calculation of "Arc Effect" for KÉD-1 Microdiffractometer. *O. I. Ageev, L. K. Kir'yanov, and B. M. Reizis.* **1987, No. 5, 1223 [184].**

X-Ray Diffraction Study of Surface-Layer Structure in Parallel Grazing Rays. *N. I. Shtypulyak, I. I. Yakimov, and V. V. Litvintsev.* **1988, No. 5, 1308 [181].**

New Optical System for Differential Grazing-Incidence X-Ray Diffractive-Reflection Measurements. *A. L. Golovin and E. T. Mas'.* **1989, No. 5, 1225 [222].**

Apparatus for Study of Polarization of X-Rays Excited by Grazing Incidence of Ions on Target. *V. P. Petukhov.* **1990, No. 1, 208 [195].**

X-Ray Diffraction Topography in Grazing Geometry. *V. I. Polovinkina, E. M. Pashaev, T. V. Mitinskaya, D. A. Bugrov, and O. N. Besprozvannykh.* **1990, No. 1, 211 [197].**

Simultaneous Recording of Angle and Energy Diffraction Patterns. *E. I. Bersudskii, R. R. Karpov, V. V. Pet'kov, and A. V. Polenur.* **1990, No. 2, 454 [196].**

Stroboscopic Pulse Selector for Study of the Effect of Ultrasonic Waves on X-Ray Diffraction in Crystals. *A. A. Khazanov, F. N. Chukhovskii, B. V. Shteinbakh, and M. A. Galushko.* **1990, No. 4, 953 [210].**

Use of High-Resolution Double-Crystal Spectrometer to Measure Valent State of Titanium Ions in TiO_{2-x} and $SrTiO_{3-x}$ Single Crystals. *Yu. V. Zaitseva, V. S. Konevskii, E. V. Krivonosov, L. A. Litvinov, M. F. Ozerov, and L. P. Podus.* **1991, No. 3, 675 [182].**

Compton Gamma Flaw Detection. *V. E. Rad'ko.* **1991, No. 4, 929 [174].**

16.3.6. Formation of x-ray beams

Spectral Scanning of the X-Ray Emission of Plasma Microsources (Review). *V. A. Boiko, S. A. Pikuz, and A. Ya. Faenov.* **1980, No. 2, 291 [5].**

X-Ray Collimators. *V. I. Lisoivan, R. R. Dikovskaya, and V. I. Sedin.* **1978, No. 1, 226 [211].**

Dispersive X-Ray Photographic System. *V. A. Boiko, S. A. Pikuz, and A. Ya. Faenov.* **1978, No. 2, 513 [232].**

Shaping of Isotropic Radiation Flux of X-Ray Generators. *F. L. Gerchikov, I. D. Ivanov, I. P. Karpinskii, N. K. Sipyagina, and A. G. Khryapin.* **1980, No. 6, 1506 [172].**

Improved Aperture in an Iogansson X-Ray Fluorescence Spectrometer. *K. V. Anisovich and N. I. Komyak.* **1981, No. 1, 242 [228].**

Slitless X-Ray Collimator. *T. A. Mingazin, V. I. Zelenov, and V. N. Leikin.* **1981, No. 1, 244 [229].**

Optimum Position of a Concave Crystal Mirror Relative to an X-Ray Macrosource. *I. S. Mezentsev, A. A. Khanonkin, and E. K. Sheffer.* **1981, No. 2, 511 [210].**

An X-Ray Collimator. *V. N. Leikin, T. A. Mingazin, and V. I. Zelenov.* **1981, No. 3, 788 [208].**

Small-Angle X-Ray Focusing Chamber for Synchrotron Radiation Analysis. *V. B. Savel'ev, P. M. Sergienko, A. A. Vazina, I. G. Fel'dman, and V. B. Khlestov.* **1981, No. 4, 1051 [213].**

Normal-Incidence Monochromator for Work with Synchrotron Radiation in the Range 40-180 nm. *A. V. Kozhevnikov and N. A. Timchenko.* **1982, No. 2, 485 [185].**

Structural Nonuniform Filters for the Vacuum Ultraviolet and Ultrasoft X-Ray Regions of the Spectrum. *A. V. Mitrofanov.* **1983, No. 4, 971 [206].**

Collimators for X Rays. *V. N. Leikin and T. A. Mingazin.* **1984, No. 2, 472 [200].**

Forming of X-Ray Beams by a Slitless Collimator. *V. N. Leikin, T. A. Mingazin, and V. I. Zelenov.* **1984, No. 6, 1333 [33].**

Influence of Beam of Synchrotron Radiation on a Crystal Monochromator. *N. V. Andronova, A. N. Artem'ev, M. V. Zelepukhin, Yu. N. Kazakov, E. P. Stepanov, and A. I. Chechin.* **1985, No. 1, 40 [43].**

X-Ray Crystal Monochromator with Curved Soller Collimator. *V. A. Vershkov and Yu. Yu. Karzhavin.* **1987, No. 6, 1470 [171].**

Polymer-Based X-Ray Filters. *L. E. Aranchuk, G. S. Volkov, M. I. Ivanov, O. V. Kozlov, and A.-R. T. Shidishkis.* **1988, No. 4, 1038 [176].**

Effective Deflection of X-Ray Beam by Curved Mirror Surfaces. *S. R. Sarkisov and E. R. Sarkisov.* **1989, No. 6, 1397 [145].**

Monochromator and Mirror with Remote Control for Focusing of Synchrotron X-Radiation. *A. M. Shamarov and V. S. Gerasimov.* **1990, No. 2, 458 [200].**

Methods for Study of Grazing- and Normal-Incidence X-Ray Mirrors. *M. M. Mitropol'skii and V. A. Slemzin.* **1990, No. 3, 684 [184].**

IKAR Automated Test Bench for Study of X-Ray Optics and Radiation Detectors at 0.5-120 nm. *M. M. Mitropol'skii, V. A. Slemzin, and N. K. Sukhodrev.* **1990, No. 3, 688 [188].**

16.4. Electron microscopy

16.4.1. Electron microscopes and their attachments

Diffractometer for Analysis and Correction of Electron-Microscope Images. *E. V. Ageev, I. F. Anaskin, and P. A. Stoyanov.* **1977, No. 1, 272 [236].**

Deflection System for Adjustment and Scanning of Electron Beams. *Yu. L. Rybakov and B. N. Vasichev.* **1977, No. 5, 1459 [193].**

Apparatus for Measuring the Sensitivity and Data-Density Characteristics of Electron-Sensitive Materials. *S. F. Golub, N. P. Kupreichik, A. M. Lisov, and K. G. Predko.* **1978, No. 2, 518 [237].**

Scan-Forming Unit for Controlling Coupled Beams from an Electron-Beam Probing Device. *V. N. Ordinartsev, V. A. Khmara, and O. S. Shvedov.* **1979, No. 2, 489 [183].**

Multistage Gun in an Electron Microscope. *P. A. Stoyanov, I. S. Renskii, V. V. Moseev, L. A. Chalbasheva, and A. E. Vedeneev.* **1980, No. 1, 229 [220].**

Attachment to ÉMV-100L Electron Microscope for Irradiation by Ions. *V. F. Zelenskii, I. M. Neklyudov, V. E. Rybalko, V. I. Bendikov, S. M. Khazan, and O. Ya. Tal'yanskaya.* **1980, No. 3, 787 [224].**

Improved Electron-Optical System for the REM-200 Scanning Electron Microscope. *V. I. Udal'tsov, V. D. Kushkov, and I. S. Kozlov.* **1981, No. 3, 786 [206].**

Raster Optical Microscope Attachment to a Raster Electron Microscope. *A. B. Ormont and A. S. Maksimov.* **1981, No. 6, 1534 [187].**

Scanning Generator for Scanning Electron Microscope. *O. L. Kulyas, A. A. Kamalyagin, and I. A. Golovenkin.* **1982, No. 5, 1249 [175].**

Digital Multiple-Standard Synchrogenerator for Scanning Electron Microscopes. *G. V. Korolev, V. G. Balobanov, O. L. Kulyas, A. A. Kamalyagin, and A. V. Danilov.* **1982, No. 5, 1252 [178].**

Energy Analyzing Electron Microscope for Local Electron Spectroscopy. *E. A. Bakulin, L. A. Balabanova, E. G. Ostroumova, E. V. Stepin, A. I. Slutsker, and A. L. Shakh-Budagov.* **1983, No. 3, 692 [183].**

RÉM-200 Scanning Electron Microscope Used as a Microprobe Analyzer. *V. I. Utal'tsov, V. D. Kushkov, I. S. Kozlov, and V. G. Kopylov.* **1983, No. 5, 1923 [198].**

Magnification Indicating Unit for the RÉM-200 Scanning Electron Microscope. *V. V. Pankratov, V. V. Rybalko, and A. N. Tikhonov.* **1983, No. 5, 1225 [200].**

Strobe Attachment for a Scanning Electron Microscope. *A. A. Voevodin, A. I. Pautov, and B. N. Tatko.* **1983, No. 6, 1442 [173].**

Cryogenic Attachment to an Electron Microscope. *A. V. Shavlov, V. B. Anzin, K. M. Golant, and V. S. Korzhavin.* **1983, No. 6, 1461 [190].**

Attachment to an Electron Microscope for the Study of the Influence of Electron Beams on Semiconductors. *K. V. Avakyan and Z. N. Adamyan.* **1984, No. 1, 222 [202].**

Autoemission Cathodes Made of Carbon Fiber for an Electron Microscope. *N. I. Osipov.* **1984, No. 5, 1265 [199].**

Differential Ultrahigh-Vacuum Pump for Electron Microscope. *A. A. Kroshkov, E. A. Baranova, O. A. Yakushenko, A. V. Latyshev, A. L. Aseev, and S. I. Stenin.* **1985, No. 1, 220 [199].**

Device for Heating Specimens in REM-200 Scanning Electron Microscope. *I. S. Stoletov, I. A. Korzh, and V. S. Kovivchak.* **1985, No. 3, 726 [202].**

Field-Emission Cathodes for CWIKSCAN Scanning Electron Microscopes. *R. M. Khatapova, V. Kh. Romanova, L. L. Demskaya, and V. A. Gushchin.* **1985, No. 3, 727 [203].**

Heat- and Radiation-Resistant Scintillator for Electron Microscopes. *A. V. Kosov, S. A. Petrov, A. P. Puzyr', and N. A. Chetvergov.* **1986, No. 4, 965 [189].**

Attachment to ÉMV-100L Electron Microscope for Specimen Irradiation by Gas-Ion Beam. *V. I. Bendikov, O. Ya. Tal'yanskaya, and V. F. Rybalko.* **1986, No. 5, 1210 [203].**

Optical Spectrometer for Electron-Probe Microanalyzer. *M. V. Zamoryanskaya, A. N. Zamoryanskii, and I. A. Vainshenker.* **1987, No. 4, 932 [161].**

Electron-Optical System of Ultrahigh-Voltage Electron Microscope. *P. A. Stoyanov, I. S. Makarova, and A. V. Freidman.* **1987, No. 6, 1464 [166].**

Interface for Image Signals between Television System of Scanning Electron Microscope and Microcomputer. *A. A. Kamalyagin and É. R. Égipti.* **1989, No. 1, 98 [88].**

Holder for Automatic Specimen Change in an Electron Microscope. *M. E. Shcherbina.* **1989, No. 2, 507 [221].**

Stroboscopic Electron Microscope for Study of Dynamic Domains in Magnetic Thin Films. *Yu. A. Durasova, A. S. Kashintsev, and O. S. Kolotov.* **1989, No. 5, 1219 [217].**

Heater Attachment for Transmission Electron Microscope. *B. L. Gazerov, V. I. Mikhailov, and E. V. Pustovalov.* **1991, No. 4, 977 [215].**

16.4.2. Methods of electron microscopy

Diffraction Method of Determining Thickness of Ferromagnetic Films in an Electron Microscope. *Ya. M. Pogosyan and D. Petsol'd.* **1977, No. 4, 1195 [251].**

Measurement of Electrical Microfields in Scanning Electron Microscope. *V. P. Ivannikov, A. E. Luk'yanov, V. P. Novozhilov, and G. V. Spivak.* **1977, No. 5, 1456 [191].**

Connection between the Spatial Frequency Distortions and the Resolution of a Raster Electron Microscope Operating in the Secondary-Electron-Emission Regime. *V. P. Golubev, B. N. Vasichev, and O. A. Buklova.* **1978, No. 4, 1113 [247].**

Sensitivity of Films when Used in High-Voltage Electron Microscopy. *M. M. Kantor, V. N. Kolotinskii, I. I. Novikov, and V. N. Timofeev.* **1978, No. 5, 1399 [219].**

Quantitative Registration of Electric and Magnetic Microfields in a Raster Electron Microscope. *É. I. Rau, G. V. Spivak, and N. M. Karelin.* **1978, No. 5, 1404 [224].**

Obtaining Equipotential Patterns with Increased Accuracy on a Scanning Electron Microscope. *V. G. Dyukov, M. I. Kolomeitsev, S. I. Gavrikov, and N. N. Sedov.* **1979, No. 2, 572 [258].**

Electronic Probe Method of Investigating Magnetic Fields. *É. I. Rau, G. V. Spivak, and V. V. Tekin.* **1980, No. 4, 996 [180].**

Correlation Diffraction Patterns — A Means of Determining Electron Microscope Resolution. *I. F. Anaskin, E. V. Ageev, and P. A. Stoyanov.* **1980, No. 6, 1500 [168].**

Application of a Scanning Electron Microscope for the Investigation of Surface-Acoustic-Wave Propagation. *R. Yu. Valatka, V. G. Dyukov, S. A. Ionelyunas, M. I. Kolomeitsev, and L. I. Pranyavichyus.* **1981, No. 4, 1049 [211].**

Execution of High-Resolution Diffraction Investigations on Domestic Electron Microscopes. *V. E. Obukhov.* **1983, No. 3, 696 [186].**

Use of an REM-200 Scanning Electron Microscope for Scanning Electron-Beam Annealing. *N. A. Sainov.* **1983, No. 4, 964 [199].**

Method for Measuring Temperature of Surface Irradiated by Electron Beam. *A. B. Ormont.* **1985, No. 3, 699 [178].**

Moire Method for Study of Magnetic Field in Transmission Electron Microscope. *V. P. Ivannikov.* **1986, No. 3, 745 [217].**

Obtaining High Depth Resolution in X-Ray Emission Spectroscopy of Substrate-Under-Film Transition Layers in Heterostructures. *A. B. Ormont.* **1986, No. 4, 927 [157].**

Use of Brightness Amplifier Based on Microchannel Plate in High-Resolution Transmission Electron Microscope. *N. D. Zakharov and S. I. Gavrikov.* **1987, No. 2, 459 [188].**

Extractor of Surface-Potential Signal in Scanning Electron Microscope. *S. A. Gorban', S. A. Nepiiko, and V. I. Stepkin.* **1988, No. 5, 1234 [124].**

16.4.3. Specimen preparation

Test Object for a Raster Electron Microscope. *A. S. Oleinik and L. N. Mal'ko.* **1977, No. 4, 1215 [269].**

Production of Semiconductor Specimens Transparent to Electrons. *V. N. Shabanov, V. G. Shengurov, and N. V. Gudkova.* **1980, No. 3, 799 [234].**

Test Object for Electron Microscopes. *L. I. Bezruk and G. B. Esaulenko.* **1983, No. 4, 966 [201].**

Production of Thin Silicon Crystals for Transmission Electron Microscopy. *I. E. Talanin, L. M. Sorokin, and É. G. Sheikhet.* **1984, No. 2, 502 [225].**

Preparation of Metal-Silicon Specimens by Chemical Etching for Study by Electron-Diffraction Camera and Electron Microscope. *Yu. L. Bobchenok.* **1986, No. 1, 250 [214].**

Simple Cell for Jet Polishing of Specimens for Transmission Electron Microscopy. *A. A. Malinin.* **1988, No. 3, 819 [250].**

Preparation of Transverse Sections of Silicon Wafers for Transmission Electron Microscopy. *A. A. Malinin and V. Ya. Reznik.* **1988, No. 5, 1238 [126].**

Preparation of Sections of Heterophase Epitaxial Structures for Transmission Electron Microscopy. *S. V. Rubanov, S. M. Pintus, and A. K. Gutakovskii.* **1989, No. 3, 708 [190].**

Preparation of Corundum Single Crystals for Transmission Electron Microscopy. *A. S. Beletskii, A. A. Mitilino, and A. V. Shikhovets.* **1989, No. 5, 1244 [238].**

16.5. Autoionization and electron projectors

Generator Producing Evaporating Pulses for an Atomic Probe. *N. V. Nikonenkov and V. B. Lebedev.* **1977, No. 3, 717 [97].**

Autoionization Microscope. *A. F. Bobkov, V. A. Vasil'ev, B. Ya. Kuznetsov, G. M. Kukavadze, A. L. Suvorov, M. I. Tumbakova, and K. P. Shakhov.* **1978, No. 3, 784 [213].**

Recording Unit for an Atomic Probe. *N. V. Nikonenkov.* **1979, No. 3, 825 [196].**

Arrangement for Studying Field Emission in the Nanosecond and Subnanosecond Ranges. *B. A. Koval', D. I. Proskurovskii, and V. P. Rotshtein.* **1979, No. 4, 1146 [243].**

Field-Emission Microscopes for the Investigation of the Emission Properties of Single Crystal Faces. *A. L. Suvorov, A. F. Bobkov, B. Ya. Kuznetsov, and S. V. Zaitsev.* **1979, No. 4, 1151 [248].**

Field Desorption Microscope. *N. V. Nikonenkov, V. P. Khlyntsev, and L. P. Potapov.* **1980, No. 3, 784 [221].**

Method for Studying Radiation Blistering in Autoionization Microscopes. *Zh. I. Dranova, I. M. Mikhailovskii, and A. L. Suvorov.* **1980, No. 3, 788 [225].**

Field-Ion Microscope with Accelerated-Ion Source. *Zh. I. Dranova, V. A. Ksenofontov, V. B. Kul'ko, I. M. Mikhailovskii, and E. V. Sadanov.* **1980, No. 6, 1497 [166].**

Demountable Electron-Ion Microscope. *M. P. Ardashev, A. O. Golubok, N. F. Fedorov, O. P. Sharkova, and A. L. Shelankov.* **1981, No. 1, 236 [222].**

Electron-Optical Recording of Nonstationary Adsorption on a Metal Surface. *V. I. Zhavoronkov, S. P. Manokhin, A. A. Antonov, V. V. Vedernikov, and B. V. Filippov.* **1982, No. 6, 1447 [120].**

A Universal Field-Emission and Field-Ion Microscope. *V. N. Il'in, E. P. Sheshin, and D. A. Shomin.* **1983, No. 2, 452 [193].**

Field-Emission Microscope for Use with Gas Molecular Beams. *R. F. Gazizov, Yu. A. Gel'man, E. I. Givargizov, Yu. M. Dymshits, and A. A. Chernov.* **1983, No. 6, 1439 [170].**

A Time-of-Flight Atomic Probe. *A. F. Bobkov, I. L. Karpikhin, V. A. Kasatkin, N. E. Lazarev, and A. L. Suvorov.* **1984, No. 2, 461 [190].**

Apparatus for Correlation Analysis of Field Emission at Infrasonic Frequencies. *R. Z. Bakhtizin, S. S. Gots, and A. I. Tlyauberdin.* **1984, No. 4, 918 [119].**

Field-Ion Microscope with Plasma Preparation of Specimen Surface. *A. L. Suvorov, A. F. Bobkov, S. V. Zaitsev, and V. A. Kasatkin.* **1985, No. 6, 1448 [188].**

Determination of Path Profiles of Ions Implanted in Metals by an Atomic Probe. *A. L. Suvorov, A. F. Bobkov, and N. E. Lazarev.* **1986, No. 4, 935 [164].**

Field-Emission Microscope-Analyzer. *V. A. Kasatkin, V. I. Kvintradze, and A. L. Suvorov.* **1987, No. 1, 210 [191].**

Field-Emission Apparatus for Study of Surface Properties of Metals and Metal-Film Systems. *T. V. Aladzhikov, A. F. Bobkov, I. L. Karpikhin, V. A. Kasatkin, V. I. Kvintradze, N. M. Kryukov, N. E. Lazarev, E. Yu. Pokrovskii, Yu. A. Roze, A. L. Suvorov, and A. N. Tsagolov.* **1988, No. 3, 775 [215].**

Atom Probe with Space-Time Ion Focusing. *A. N. Kudryavtsev, N. V. Nikonenkov, B. M. Dubenskii, and D. V. Shmikk.* **1990, No. 2, 388 [140].**

16.6. Semiconductors

16.6.1. Semiconductor fabrication technology and quality control

Thermal Component for Growing Silicon Ribbons. *V. P. Bereza, T. A. Ovchinnikova, and V. Yu. Turkovskii.* **1980, No. 2, 531 [216].**

Setup for the Controllable Growth of Lead Chalcogenide Layers and Their Solid Solutions. *T. A. Smorodina and A. P. Tsuranov.* **1980, No. 4, 1014 [196].**

Low-Current Source for the Nondestructive Inspection of Metal–Dielectric–Semiconductor Structures. *E. G. Sal'man, V. A. Samoilov, and V. N. Vertoprakhov.* **1980, No. 4, 1040 [220].**

Parameter Measurement for p-Si during Li Drift Compensation. *V. A. Kostin, N. E. Mazurik, and A. K. Pustovoit.* **1981, No. 1, 260 [245].**

Fabrication and Properties of Amorphous As–Te Films. *M. D. Bal'makov, M. D. Mikhailov, and I. M. Pecheritsyn.* **1981, No. 5, 1307 [193].**

Instrument for Measuring Current-Carrier Density Distributions in Semiconductors. *A. M. Vitkus, A. K. Laurinavichyus, Yu. K. Pozhela, and P.-A. P. Yashinskas.* **1982, No. 1, 243 [214].**

An Electrochemical Method of Determining the Depth Distribution of Donor Impurities in Silicon. *O. V. Aleksandrov and G. A. Gavrikov.* **1982, No. 3, 749 [207].**

Microwave Resonator for Contactless Measurement of the Resistivity Distribution of Semiconductor Plates with High Spatial Resolution. *G. N. Danilov, Yu. V. Lisyuk, and Yu. V. Medvedev.* **1984, No. 3, 752 [206].**

Apparatus for Investigation of Clusters of Electrically Active Impurities in Semiconductors by the Method of Small-Angle Light Scattering. *S. E. Zabolotskii, V. P. Kalinushkin, M. G. Ploppa, and T. M. Murina.* **1984, No. 4, 1021 [206].**

Measurement of Carrier-Concentration Distribution in Epitaxial Layers of $Pb_{1-x}Sn_xTe$. *O. A. Aleksandrova, M. I. Kamchatka, and M. S. Miropol'skii.* **1985, No. 5, 1189 [182].**

Electrochemical Apparatus for Automatic Measurement of Carrier-Concentration Distribution in Semiconductors. *N. A. Belova, L. A. Galchenkov, and N. E. Skvortsova.* **1985, No. 6, 1441 [182].**

Automated Apparatus for Measurement of Area Resistivity Distribution of Semiconductor Wafers. *G. N. Danilov, Yu. P. Egorov, Yu. V. Medvedev, V. A. Pakhorukov, A. S. Petrov, B. L. Pivovarov, and A. I. Safronov.* **1986, No. 2, 488 [205].**

Apparatus Based on KSVU-5 System for Study of Semiconductor Films. *S. A. Voroshilov, V. V. Kisin, and V. F. Nazvanov.* **1987, No. 4, 972 [194].**

Ultrahigh-Vacuum Apparatus for Silicon Molecular-Beam Epitaxy. *B. Z. Kanter, N. T. Moshegov, A. I. Nikiforov, S. I. Stenin, and S. A. Tiis.* **1988, No. 2, 461 [171].**

Automated Apparatus for Growing of Semiconductor Crystals. *S. N. Besedin, Yu. L. Il'in, D. R. Lagkuev, V. A. Moshnikov, and D. A. Yas'kov.* **1989, No. 1, 248 [217].**

Automated Apparatus for Growth of Semiconductor Crystals from Vapor Phase. *A. D. Abramishvili, Yu. L. Il'in, V. A. Moshnikovs and D. A. Yas'kov.* **1990, No. 6, 1437 [186].**

Automated Apparatus for Growth of Superlattices Based on $Pb_{1-x}Sn_xSe$ Semiconductors by Molecular-Beam Epitaxy. *K. V. Vyatkin, V. M. Legostaev, A. A. Mikheev, and S. Yu. Podtaev.* **1991, No. 2, 425 [176].**

Device for Vacuum Cleavage of Semiconductor Crystals with Subsequent Adjustment of the Cleavage Surface. *Yu. I. Asalkhanov, I. I. Dombrovskii, and A. V. Zhelaev.* **1991, No. 3, 714 [216].**

16.6.2. Semiconductor contacts

Ohmic Contacts for Partially Compensated p-Si. *G. A. Abramchuk, V. Ya. A'leksandrenko, V. A. Alekhin, and I. M. Kravchuk.* **1979, No. 1, 271 [254].**

Manufacture of Hall Transducer Contacts. *K. D. Potaenko.* **1980, No. 1, 276 [265].**

Low-Temperature Contacts to Gallium Arsenide. *S. S. Varshava and V. V. Vainberg.* **1980, No. 1, 279 [268].**

Fabrication of Ohmic Contacts to Stratified Single Crystals of Type $A^{III}B^{VI}$. *L. A. Demchina, Z. D. Kovalyuk, and I. V. Mintyanskii.* **1980, No. 2, 534 [219].**

Production of Ohmic Point Contacts on $CdCr_2Se_4$ Single Crystals. *A. I. Merkulov, S. I. Radautsan, and V. E. Tézlévan.* **1981, No. 2, 532 [229].**

Ohmic Contacts on ZnTe. *V. P. Gribkovskii, A. K. Belyaeva, V. V. Zubritskii, V. A. Ivanov, and I. A. Kashina.* **1981, No. 2, 548 [244].**

A High-Temperature Masking Coating for Making Contacts on Synthetic Diamonds. *N. T. Klimenkova, E. O. Prokopchuk, and T. P. Chunosova.* **1981, No. 5, 1326 [210].**

Fabrication of Schottky Barriers on n-Type Indium Phosphide Samples. *E. F. Astakhova, R. I. Gloriozova, and N. P. Komissarova.* **1981, No. 6, 1537 [189].**

Ohmic Palladium Contacts on Silicon and Germanium Single Crystals. *A. V. Protsenko, M. N. Belikova, V. N. Sinitsyn, and I. F. Poyarkova.* **1981, No. 6, 1542 [193].**

Monitoring the Ohmic Character of Metal-Semiconductor Contacts. *I. B. Gulaev, A. G. Zhdan, and N. M. Rossukanyi.* **1983, No. 2, 457 [197].**

Device for Automatic Formation of an Ohmic Contact to a Semiconductor Structure with a p–n Junction. *V. B. Barkov and L. V. Lebedeva.* **1984, No. 5, 1275 [209].**

Preparation of Ohmic Contacts to p-Type CdTe Specimens. *I. A. Plysyuk.* **1984, No. 5, 1277 [211].**

Ohmic Contacts on InSe Layered Single Crystals for Temperatures of 4.2-300 K. *A. I. Dmitriev, V. I. Lazorenko, and G. V. Lashkarev.* **1989, No. 1, 238 [209].**

16.6.3. Study of semiconductor properties

Simultaneous Measurement of Contact Potential and Conductivity of a Semiconductor. *A. N. Kalinin and B. I. Bednyi.* **1977, No. 1, 279 [242].**

Instrument for Automatic Measurement of Profile of Shallow-Level Concentration. *O. M. Orlov, V. Ya. Prints, and E. M. Skok.* **1979, No. 4, 1163 [258].**

Local Nonlinearity Monitoring for a Semiconductor in a Strong uhf Field. *D. I. Bilenko, A. E. Lun'kov, and P. I. Kutsevlyak.* **1980, No. 1, 244 [235].**

Apparatus for Measuring Thermally Stimulated Conduction. *N. A. Lushnikov and A. G. Zhdan.* **1980, No. 4, 1044 [224].**

Measurement of Charge of Interface in Homogeneous and Heterogeneous Junctions. *V. I. Polyakov, P. I. Perov, and L. A. Avdeeva.* **1980, No. 6, 1508 [174].**

Apparatus for Examining Transient Processes in a Semiconductor Field-Emission Device. *R. Z. Bakhtizin and V. I. Il'in.* **1981, No. 1, 256 [240].**

Apparatus for Examining Electronic Energy Transport between Excited States in Donor–Acceptor Systems. *K. I. Salokhiddinov, E. I. Sagun, E. I. Zen'kevich, and G. P. Gurinovich.* **1981, No. 1, 258 [243].**

Setup for Measuring the Field Effect in Semiconductors. *M. V. Belous, V. L. Korobanov, B. A. Novominskii, V. A. Novominskii, and S. E. Radinskii.* **1981, No. 2, 506 [205].**

Measurement of Diode Characteristics during Heating of Electrons by a uhf Field. *I. A. Galchenkov, V. V. Kukushkin, V. N. Solyakov, and S. M. Syrovegin.* **1981, No. 4, 1068 [228].**

Measurement of Magnitude of Built-In Field near the Base of a Junction Diode. *V. V. Togatov.* **1981, No. 4, 1071 [231].**

Measuring Apparatus for the Study of Emission Currents in MOS Structures. *N. A. Dyuzhev, A. I. Kozlov, and V. I. Makhov.* **1982, No. 3, 744 [204].**

Small Electrolytic Cell with a Magnetic Clamp for the Study of Semiconducting Materials. *V. B. Barkov, Yu. K. Krutogolov, and L. V. Lebedeva.* **1983, No. 4, 988 [222].**

Equipment for Measuring Low-Frequency Noise of High-Resistance Semiconductors. *Yu. N. Kobtseva and V. V. Kuz'min.* **1983, No. 6, 1451 [181].**

Apparatus for Measuring Low-Frequency Noise of Low-Resistance Semiconductor Samples in Pulsed Operation. *S. A. Alekperov, V. F. Aleksandrov, Ch. O. Kadzhar, and E. Yu. Salaev.* **1984, No. 5, 1251 [187].**

Apparatus for Study of Defect Centers in Semiconductors. *I. B. Puzin and V. G. Evsyukov.* **1985, No. 5, 1230 [217].**

Noise Characteristics of Silicon Thin-Film Resistors. *S. V. Belogurov, V. V. Gostilo, and A. S. Yurov.* **1986, No. 6, 1357 [108].**

Electron-Beam Apparatus for Study of Radiation-Stimulated Processes in Semiconductors. *B. N. Vasichev, I. S. Shchedrin, I. I. Gozin, E. A. Ermilov, V. N. Balashov, V. A. Plyasunov, and S. V. Urzhumov.* **1988, No. 3, 791 [227].**

General-Purpose Apparatus for Study of Strain Properties of Semiconductor Materials. *M. K. Bakhadyrkhanov, A. Abduraimov, A. Khamidov, Kh. M. Iliev, and Kh. F. Zikrillaev.* **1988, No. 4, 1036 [174].**

High-Speed Device for Study of Relaxation of Capacitance, Surface Potential, and Generation Current of Metal-Dielectric-Semiconductor Structures. *V. M. Bazovkin, V. G. Polovinkin, and N. I. Khaliullin.* **1989, No. 2, 464 [185].**

Automated System for Study of High-Resistance Semiconductors. *S. E. Abdulgafarov, A. P. Koka, R. S. Naurzalin, B. M. Talibaev, M. A. Tashimov, and Yu. N. Tokarev.* **1989, No. 4, 976 [215].**

Determination of the Injection Capacity of Silicon Diode Structures. *M. Yu. Isaev, V. D. Frolov, V. B. Barkov, S. V. Il'in, and Yu. K. Krutogolov.* **1989, No. 6, 1394 [143].**

Automated Measuring Complex for the Study of Semiconductor Structures. *A. I. Rukovishnikov, V. I. Polyakov, P. I. Perov, O. N. Ermakova, M. G. Ermakov, B. G. Ignatov, A. V. Shemet, and A. L. Aleksandrov.* **1990, No. 5, 1199 [206].**

16.6.4. Study of conduction

Physical Resistance Standard based on the Quantum Hall Effect (Review). *I. Ya. Krasnopolin, V. M. Pudalov, and S. G. Semenchinskii.* **1987, No. 6, 1275 [5].**

Apparatus for Studying Parameters of Metal–Dielectric–Semiconductor Structures by Conductivity Method. *S. V. Belotelov, R. A. Suris, and V. N. Fedorov.* **1978, No. 1, 231 [216].**

Instrument for Hall Measurements in Strong Electric Fields. *V. N. Dobrovol'skii, Yu. S. Zharkikh, and A. N. Krolevets.* **1978, No. 2, 511 [230].**

Installation for the Investigation of Nonequilibrium Parameters of Semiconducting Structures. *A. S. Maksimov, V. V. Kovtun, and V. P. Sinilo.* **1978, No. 4, 1101 [236].**

Measurement of the Diffusion Length of Minority Carriers in p–n Junctions. *R. N. Lovyagin and N. R. Semenova.* **1978, No. 6, 1630 [156].**

Use of the Spreading-Resistance Method to Monitor the Resistivity and the Thickness of Epitaxial Layers of Semiconducting Materials. *V. A. Malyshev.* **1979, No. 1, 232 [218].**

Automated Device for Semiconductors Diagnostics Using the Helicon uhf Method. *A. M. Vitkus, A. K. Laurinavichyus, Yu. K. Pozhela, P.-A. P. Yashinkas.* **1980, No. 3, 769 [208].**

Automation of Recording of the Dependence of Semiconductor Plate Resistivity on Temperature by the Van der Pauw Method. *G. L. Lyakhu, I. P. Molodyan, and G. S. Korotchenkov.* **1980, No. 4, 1042 [222].**

Measurement of Diffusion Length of Current Carriers in Semiconductors Using a Microscopic Electron Probe. *A. B. Ormont.* **1981, No. 2, 508 [207].**

Automated Equipment for Measuring the Galvanomagnetic Characteristics of Low-Resistance Semiconductors in High Electric Fields. *V. S. Radchenko.* **1981, No. 3, 795 [215].**

Two-Frequency Method of Measuring Hall emf in High-Resistance Materials with Low Charge-Carrier Mobility. *A. L. Aleksandrov, A. S. Vedeneev, I. B. Gulyaev, and A. G. Zhdan.* **1982, No. 2, 459 [163].**

Instrument for Contact Measurements of Kinetic Parameters of Semiconductors. *B. B. Anisimov, V. G. Kakuberi, and Yu. A. Mal'tsev.* **1982, No. 3, 739 [199].**

Resonator for Resistivity Measurements on Semiconductor Specimens. *A. G. Levashkin, A. S. Petrov, and G. I. Tyul'kov.* **1982, No. 5, 1263 [187].**

Determination of Carrier Mobilities in Semiconductor Films Having Macroflaws. *V. A. Zykov, S. A. Kaz'min, and V. I. Kaidanov.* **1982, No. 5, 1267 [190].**

Recording Small Resistance Changes in Semiconductors Caused by Subnanosecond Pulses. *Z. Dobrovol'skis and A. Krotkus.* **1983, No. 3, 710 [198].**

Measuring Apparatus for Hall Emf and Conductivity in Ion-Doped Semiconductor Materials. *O. B. Baranov, S. S. Godakov, A. B. Klyukvin, and E. V. Mikhailutsa.* **1983, No. 4, 974 [209].**

Automatic System for Examining the Hall Effect in Specimens of Any Shape. *P. S. Kop'ev, G. M. Minchev, V. M. Ustinov, and S. V. Ivanov.* **1983, No. 5, 1219 [195].**

Contactless Measurement of Charge Carrier Mobility in Semiconductors. *Yu. E. Gordienko and B. G. Borodin.* **1984, No. 1, 208 [189].**

Specimen Holder for Measuring the Hall Coefficient and Electrical Conductivity of Semiconductors. *L. M. Metelitsa, E. P. Sabo, and G. G. Tsveiba.* **1984, No. 4, 1043 [225].**

Contactless Measurement of Carrier Mobility and Concentration in Semiconductors. *R. Yu. Pozhera, R. B. Tolutis, and T. S. Ebersonas.* **1986, No. 1, 213 [185].**

Device for Measurement of Resistance of Semiconductors in Heating Electric Fields. *V. V. Loshkarev.* **1987, No. 4, 975 [197].**

Device for Contactless Local Determination of Free-Carrier Mobility in Semiconductors. *Yu. V. Medvedev, A. S. Petrov, and A. A. Skryl'nikov.* **1988, No. 1, 219 [189].**

Measurement of Electrical Conductivity and Hall Coefficient of Anisotropic Semiconductor Materials. *N. N. Polyakov and A. D. Pashun.* **1990, No. 2, 446 [190].**

Precision Measurement of Hall Mobility and Resistivity by Six-Wire Method. *A. S. Vedeneev, V. V. Ryl'kov, and A. G. Shafran.* **1990, No. 5, 1206 [212].**

Four-Wire Resistivity Meter for Semiconductor Materials. *A. I. Fedonin and L. V. Kamenev.* **1991, No. 2, 434 [184].**

16.6.5. Measurement of carrier lifetime in semiconductors

Equipment for Measuring the Effective Lifetimes of Levels Excited by High-Energy Charged Particles. *V. S. Il'yashenko and A. I. Mis'kevich.* **1980, No. 1, 220 [212].**

Carrier Lifetimes in $Cd_xHg_{1-x}Te$ Crystals from Photoconduction Relaxation. *A. I. Vlasenko and A. V. Zubakov.* **1980, No. 2, 510 [199].**

A Difference Method of Measuring the Lifetime of Minority Charge Carriers in Power Transistors. *B. I. Grigor'ev, V. A. Rudskii, and V. V. Togatov.* **1981, No. 4, 1065 [226].**

Measuring Instrument for the Lifetime of Minority Carriers in the Base Regions of Three-Layer Structures. *B. I. Grigor'ev, E. A. Gritsevskii, V. N. Goremyshev, and V. V. Togatov.* **1982, No. 3, 741 [201].**

Apparatus for Measuring the Rate of Surface Recombination of Semiconductors Using Cathodoluminescence. *A. D. Korinfskii and A. L. Musatov.* **1983, No. 1, 198 [163].**

Equipment for the Electrodeless Measurement of the Lifetime of Charge Carriers in Semiconductors. *Yu. E. Gordienko, Yu. A. Dudkin, B. G. Borodin, and D. A. Fedotov.* **1983, No. 2, 465 [204].**

Measurement of Nonequilibrium Carrier Effective Lifetime for Semiconductor Wafers. *L. I. Barabash, P. G. Litovchenko, and A. I. Tregub.* **1983, No. 5, 1216 [193].**

Apparatus for Measurement of Minority-Carrier Lifetime. *A. Ya. Panov and M. K. Samokhvalov.* **1986, No. 6, 1442 [182].**

Apparatus for Measurement of Excess-Carrier Lifetime in Semiconductors. *V. S. Postnikov, B. M. Kolokol'nikov, and Yu. A. Kapustin.* **1988, No. 2, 472 [179].**

Contactless Phase Method for Determination of Excess-Carrier Lifetime in Semiconductors. *A. G. Areshkin, A. S. Ivanov, D. G. Letenko, and A. B. Fedortsov.* **1991, No. 4, 959 [202].**

16.6.6. Capacitance methods

Dynamic Volt-Capacitance Characteristic Measurement in Metal-Oxide-Semiconductor Structures. *M. K. Samokhvalov, V. V. Novichkov, and A. M. Sverdlova.* **1977, No. 2, 559 [209].**

Universal Pointlike Capacitive Probe for the Investigation of Semiconductor Parameters. *Yu. N. Brovkin, B. V. Zhidelev, S. A. Kostylev, and E. F. Prokhorov.* **1978, No. 6, 1664 [187].**

Cathode-Ray Curve Tracer for Recording the Volt–Farad Characteristics of p–n Transitions with Large Losses. *V. A. Dvinskikh, V. P. Parusov, and A. S. Sergeev.* **1979, No. 2, 493 [186].**

Spectroscopy of Deep Impurity Levels by the Compensation Method. *V. Ya. Prints and K. G. Bulateskii.* **1979, No. 4, 1160 [255].**

Device Measuring Time Constant of Charge Relaxation for Capacitive Spectrometer. *P. V. Kuchinskii, V. M. Lomako, and A. P. Petrunin.* **1980, No. 3, 777 [215].**

Semiautomatic System for Measuring the Nonequilibrium Capacitance of Semiconductor Structures. *N. A. Kislov and G. N. Kokhanchik.* **1981, No. 4, 1058 [219].**

Apparatus for the Investigation of Deep Level Parameters in Semiconductors. *V. B. Barbov, L. V. Lebedeva, and I. A. Fomin.* **1982, No. 6, 1513 [178].**

Automated System for Studying the Capacitance-Voltage Characteristics of Metal-Insulator-Semiconductor Structures at Infrared Frequencies. *A. N. Ponomarev, A. G. Zhdan, N. A. Lushnikov, and A. M. Klyochkova.* **1983, No. 3, 706 [195].**

Apparatus for Examining the Parameters of Lattice Defects in Semiconductor Diode structures by Capacitance Methods. *I. B. Puzin.* **1983, No. 4, 913 [155].**

Precision Linear Generator for the Study of Metal-Dielectric-Semiconductor Structures. *O. A. Orlov.* **1983, No. 5, 1121 [111].**

Automatic Capacitance Spectrometer for Measurement of the Parameters of Deep-Lying Centers in Semiconductors. *S. S. Shaimeev.* **1985, No. 1, 194 [175].**

Deep-Level Capacitance Spectrometer. *V. A. Samoilov and V. Ya. Prints.* **1985, No. 5, 1185 [178].**

Automated Apparatus for Measuring High-Frequency Volt-Farad Characteristics of Metal-Dielectric-Semiconductor Structures. *A. P. Kovchavtsev, S. M. Krytsyn, V. G. Polovinkin, and N. I. Khaliullin.* **1985, No. 6, 1431 [174].**

Electronic Model of p–n-Junction Depletion-Layer Capacitance. *V. V. Denisenko.* **1985, No. 6, 1439 [180].**

Method for Capacitance Study of Semiconductors with High Dielectric Constants. *D. M. Freik and R. Z. Tkachuk.* **1986, No. 3, 732 [207].**

Precision Stabilization System for MIS-Structure RF Capacitance. *V. I. Antonenko and A. G. Zhdan.* **1986, No. 4, 932 [161].**

Low-Frequency Deep-Level Capacitance Spectrometer. *S. N. Rechkunov and V. Ya. Prints.* **1986, No. 5, 1186 [182].**

Universal Capacitive Spectrometer for Measuring the Parameters of Deep Centers in Semiconductors and MOS Structures. *N. V. Bazlov, O. F. Vyvenko, and A. V. Tul'ev.* **1987, No. 3, 696 [176].**

Fast Capacitance Meter for Deep-Level Spectrometers. *I. B. Puzin and A. I. Khorunzhii.* **1987, No. 3, 701 [181].**

Panoramic Device for Studying Electric Charge Accumulation and Relaxation. *V. P. Pronin.* **1987, No. 3, 704 [184].**

Measurement of the Parameters of MIS Structures with Compensation of the Effect of the Capacitance of the Dielectric. *V. M. Chaikovskii.* **1987, No. 3, 709 [187].**

Device for Charge and Current Relaxation Spectroscopy of Levels in Semiconductors. *A. I. Rukovishnikov, V. I. Polyakov, P. I. Perov, B. G. Ignatov, O. N. Ermakova, and A. L. Aleksandrov.* **1987, No. 5, 1226 [187].**

Controller for Deep-Level Spectrometer. *I. B. Puzin, A. I. Khorunzhii, and V. T. Aleksandrov.* **1987, No. 6, 1474 [174].**

Automated Meter of Volt-Farad Characteristics based on Élektronika-60 Computer. *B. I. Sysoev, V. D. Linnik, S. A. Titov, and M. M. Strilets.* **1988, No. 1, 71 [67].**

Use of T-Bridge in Nonstationary Deep-Level Spectroscopy. *D. A. Gladyshev, O. R. Zhuravlev, V. L. Kasatov, and U. A. Shakirov.* **1988, No. 2, 465 [174].**

Automatic Plotter of Volt-Farad Characteristics of Semiconductor Structures (C-V Curve Tracer). *I. B. Puzin and A. I. Khorunzhii.* **1988, No. 3, 786 [223].**

Correlator Attachment to Deep-Level Spectrometer for Semiconductors. *E. V. Chikhrai.* **1988, No. 5, 1312 [184].**

Measuring Module for Capacitance Spectrometer. *S. L. Miloslavov and A. E. Prokof'ev.* **1989, No. 1, 222 [194].**

Linear Generator for C-V Meters. *V. Yu. Petrov and V. V. Popov.* **1990, No. 1, 111 [117].**

Automated Capacitance Spectrometer for Study of Deep Centers in Semiconductors. *N. V. Bazlov, O. F. Vyvenko, and A. A. Istratov.* **1990, No. 6, 1404 [159].**

Current Spectrometer for Deep-Center Measurements in Semiconductor Structures. *N. I. Kuznetsov.* **1990, No. 6, 1409 [163].**

Digital System for Stabilization of Radio-Frequency Capacitance of MIS Structures. *A. G. Zhdan, A. M. Klochkova, and A. M. Sumaroka.* **1991, No. 5, 1180 [177].**

16.6.7. Study of opto- and thermoelectric phenomena in semiconductors

Apparatus for Investigating the Photoconductivity of Semiconductors with UHF Biasing. *Yu. E. Gordienko, Yu. A. Dudkin, and B. G. Borodin.* **1977, No. 1, 276 [239].**

Arrangement for Study of Polarization Effects in Photoconductivity. *É. É. Godik, V. I. Dosov, O. V. Lamykin, and V. P. Sinis.* **1977, No. 5, 1465 [199].**

Automatic System for Examining Semiconductor Two-Photon Absorption Spectra. *V. I. Gavryushin, V. K. Narkyavichus, and R. A. Baltrameyunas.* **1978, No. 1, 197 [186].**

Electrolytic Cell for the Investigation of Optical Properties of Semiconductors. *V. V. Gerasimenko, A. I. Ivashchenko, I. P. Molodyan, and A. I. Solomonov.* **1978, No. 4, 1107 [241].**

Setup of Excitation of Cathode Luminescence in Semiconductors. *N. I. Koren' and V. A. Ivanov.* **1981, No. 6, 1505 [161].**

Apparatus for the Investigation of the Kinetics of Photostimulated and Thermostimulated Changes in the Surface Potential of Semiconductors. *R. F. Bulatova, A. N. Kornilko, V. A. Pavlukhin, and V. I. Shkaleto.* **1984, No. 1, 211 [192].**

Signal Splitter in Electric-Reflection Spectrometer. *E. I. Veliyulin, R. Kh. Lyapin, S. A. Musaev, and B. M. Rustambekov.* **1985, No. 1, 192 [174].**

Contactless Method for Recording Photoconductivity Spectra of Semiconductors. *B. A. Andreev, L. I. Gershtein, V. B. Ikonnikov, and V. B. Shmagin.* **1985, No. 3, 691 [172].**

Spectrometer for Study of Photoconductivity of Semiconductor in Far Infrared Region Based on IKS-31. *B. A. Andreev, A. V. Ivashin, T. M. Lifshits, G. A. Maksimov, and V. B. Shmagin.* **1985, No. 4, 925 [173].**

Apparatus for Measuring Fast Relaxation Processes in Extrinsic Photoconductors. *A. G. Zhdan, I. I. Zasavitskii, T. M. Lifshits, V. V. Ryl'kov, and A. P. Shotov.* **1985, No. 6, 1435 [177].**

Photoluminescence Power and Quantum Yield in Narrow-Gap Semiconductors. *S. I. Zolotov and A. É. Yunovich.* **1985, No. 6, 1445 [185].**

Two-Capacitor Method for Study of Photoemf in Semi-Conductors. *T. K. Bodrova, I. A. Davydov, Yu. V. Protasov, V. T. Seregin, and L. P. Strakhov.* **1986, No. 1, 216 [187].**

Apparatus for Measurement of Surface-State Density in Semiconductors by Photoemission Quantum-Yield Spectroscopy. *S. L. Filippov, E. B. Teren'tev, Yu. V. Obukhov, and V. L. Korotkikh.* **1986, No. 2, 485 [202].**

Photocapacitance Images of Metal-Dielectric-Semiconductor Structures in a Scanning Optical Microscope. *A. S. Maksimov and A. B. Ormont.* **1986, No. 3, 735 [209].**

Apparatus for Local Combination-Scattering Spectroscopy of Semiconductor Structures. *V. A. Gaisler and T. V. Kurochkina.* **1988, No. 4, 1030 [170].**

Apparatus for Polarization-Modulation Spectroscopy of Semiconductors. *V. L. Al'perovich, A. O. Minaev, S. P. Moshchenko, and A. S. Terekhov.* **1988, No. 4, 1032 [172].**

Measurement of Photoelectric Properties of Semiconductors by Optical-Modulation Method. *Yu. N. Dolganin and A. G. Tulubenskii.* **1988, No. 6, 1569 [172].**

Computer-Controlled Laser Probe for Study of the Areal Distribution of the Optical and Photoelectric Properties of Semiconductor Structures. *S. P. Moshchenko, B. V. Morozov, and A. S. Terekhov.* **1989, No. 2, 489 [205].**

Use of Organic Liquid for Study of Semiconductors by Photoemf Method. *V. P. Denisov and A. V. Pashuk.* **1991, No. 1, 221 [211].**

17. THERMAL AND CRYOGENIC INSTRUMENTS

17.1. Thermal instruments

17.1.1. Heaters

Miniature Heater. *F. B. Bizhanov, D. V. Sokol'skii, and Sh. A. Abubakirov.* **1977, No. 5, 1493 [220].**

Low-Inertia Reverberatory Furnace. *O. B. Danilov and A. G. Ravdin.* **1977, No. 5, 1494 [221].**

Measuring Chamber for Study of Optical Characteristics of Substances at High Temperatures. *A. A. Emel'yanov and E. I. Averkov.* **1978, No. 1, 245 [229].**

Temperature Block for a Neutron Diffractometer. *Z. I. Akhmedzhanov, A. A. Loshmanov, D. F. Litvin, and I. I. Yamzin.* **1978, No. 4, 1129 [260].**

High-Temperature Resistance Oven. *V. V. Grigor'yants, V. A. Detinich, M. E. Zhabotinskii, G. A. Ivanov, V. N. Isakov, A. G. Novikov, and V. V. Storozhev.* **1979, No. 3, 840 [210].**

Heater for High-Pressure Gas Thermocompressor. *M. M. Korsunskii.* **1979, No. 3, 858 [226].**

Single-Crystal Heater for Research on Orientation Effects. *V. G. Karandashov, V. I. Roslyakov, A. S. Rudnev, and E. I. Sirotinin.* **1979, No. 5, 1443 [231].**

Radio Engineering Thermostat for Objects with a Large Heat Capacity. *S. N. Garyaev, V. N. Kravtsov, and E. A. Chemes.* **1980, No. 3, 794 [230].**

Efficient Air-Cooling Method Based on a Porous Body. *V. P. Kirillov, V. V. Mozhaev, V. E. Skorovarov, and A. A. Sheronov.* **1980, No. 6, 1527 [188].**

Thermal Chamber for Spectral Investigations. *V. G. Balenko and V. V. Yurchev.* **1981, No. 3, 807 [226].**

Device for Cooling Thin Samples Irradiated by an Intense Electron Beam. *B. P. Kashnikov.* **1981, No. 4, 1074 [233].**

Device for Automatic Melting-Point Determination for Crystalline Substances. *S. V. Boryukov.* **1981, No. 4, 1088 [246].**

Thermostat for Investigation of Magnetic Susceptibility of Weakly Magnetic Materials. *S. F. Konev and V. A. Popov.* **1981, No. 5, 1327 [212].**

Quartz Reactor with a Rectangular Temperature Distribution. *V. L. Orkin.* **1981, No. 6, 1566 [213].**

Device for Measuring the Softening Temperature of Glasses. *B. T. Kolomiets and B. V. Listoshin.* **1982, No. 2, 472 [175].**

Device for Studying the Thermal Conductivity of Melts of Dielectrics in the Range 1100-2000°K. *V. D. Golyshev, M. A. Gonik, V. A. Petrov, and Yu. M. Putilin.* **1982, No. 4, 1031 [227].**

Calorimeter for Measuring Power Carried Off by Liquid Coolant. *S. G. Mikhin.* **1982, No. 5, 1281 [201].**

Resistance Thermometer for Ion-Beam Calorimetry. *S. N. Dolya, V. A. Sviridov, and V. P. Tokarskii.* **1982, No. 6, 1443 [117].**

Method of Plane Temperature Waves in the Autooscillation Regime. *V. F. Zavorotnyi and Yu. M. Poplavko.* **1984, No. 5, 1253 [189].**

An Oven for Testing Materials in Air at Temperatures Up to 1850°C. *V. E. Sotnikov, A. M. Smirnitskii, A. V. Satenovskii, V. L. Bakevich, and Yu. M. Mosin.* **1984, No. 5, 1285 [217].**

Apparatus for Measuring Thermal-Expansion Coefficients. *V. E. Rode, A. I. Lyalin, S. A. Finkel'berg, and V. G. Kavalerov.* **1984, No. 6, 1516 [193].**

Chamber for Electric Studies at Temperatures to 2100°K. *I. V. Bozhko.* **1985, No. 1, 251 [225].**

Crucible Heater for Ion Source. *S. S. Godakov and B. G. Kudryashov.* **1986, No. 4, 946 [172].**

Measuring Chamber for Study of Spectral Radiation Characteristics of Materials at High Temperatures. *V. N. Zapechnikov and V. T. Pushkin.* **1986, No. 4, 955 [181].**

Apparatus for Measurement of Thermal Diffusivity of Composite Materials by Regular-Duty Method. *M. M. Ismailov and E. A. Bel'skaya.* **1986, No. 4, 975 [198].**

Use of the Élektronika MK-64 Calculator for Controlling an Electric Oven. *M. S. Yunusov, Yu. Yu. Abdurakhmanov, V. M. Kim, and E. V. Obnedkov.* **1987, No. 3, 748 [220].**

Variable High-Voltage Supply for Electronic Heating. *B. V. Vlasov, S. G. Taluts, and D. V. Kochnev.* **1989, No. 3, 732 [212].**

Automated Complex for Synchronous Measurements of Spectral and Thermomechanical Properties of Polymer Film Materials. *I. S. Vainilovich, G. A. Grigoryan, S. S. Sheiko, and S. N. Magonov.* **1990, No. 2, 327 [87].**

Low-Power Electron-Beam Heater. *A. P. Volodin, G. A. Stepanyan, and V. S. Edel'man.* **1990, No. 3, 719 [213].**

17.1.2. Temperature controllers and regulators

Thyristor Temperature Regulator for High-Power Heaters. *V. T. Vyskub.* **1977, No. 3, 904 [251].**

Thermal Regulator that Changes the Temperature of an Object according to a Specified Program. *A. M. Emel'yanov.* **1978, No. 4, 1134 [265].**

Simple Precision Temperature Regulator for High-Power Heaters in the 50-1200°C Range. *B. A. Komarov and V. I. Sopryakov.* **1979, No. 2, 584 [269].**

Programmable Temperature Regulator. *Yu. K. Tarnopol'skii and S. V. Solov'ev.* **1979, No. 5, 1445 [233].**

Simple Thyristor Temperature Regulator. *N. A. Mel'nichenko.* **1979, No. 5, 1447 [235].**

Programming Equipment for a Thermoregulator. *V. A. Gavrish, L. F. Il'icheva, M. A. Karavanova, A. V. Radkevich, and P. E. Stadnik.* **1979, No. 6, 1645 [149].**

Digital Thermometer with Electronic Temperature Regulator. *V. P. Anferov and V. M. Mikhal'kov.* **1980, No. 2, 529 [215].**

Proportional Temperature Regulator with Phase Control for an Inductive Load. *G. A. Ermakov.* **1981, No. 4, 1092 [249].**

Modification to the Heater Unit in the Diapazon Temperature Control. *B. K. Alekseev, A. S. Kotosonov, and V. S. Tverskoi.* **1981, No. 4, 1093 [250].**

Automatic Temperature Regulator with Output Current Pulses with Adjustable Duty Cycle. *V. G. Skryabin, G. S. Pado, and I. A. Dan'kov.* **1982, No. 1, 274 [240].**

Adjustable Temperature Stabilizer. *K. P. Abdurakhmanov, B. A. Kotov, S. G. Tadzhin-Aglaeva, and T. A. Umarov.* **1982, No. 1, 276 [241].**

Temperature Regulator for Mass-Spectrometric Thermal Analysis. *S. A. Shobotenko and E. G. Zverev.* **1982, No. 2, 489 [189].**

Universal Temperature Regulator with an Object Identifier. *A. M. Troyanovskii.* **1983, No. 2, 488 [225].**

Proportional Thyristor Temperature Regulator with a Thyratron Triggering Pulse Generator. *N. P. Krupskii and M. B. Eselev.* **1983, No. 3, 730 [216].**

Digital Temperature Stabilizer. *A. F. Privalov.* **1983, No. 3, 732 [218].**

Precision Programmable Temperature Regulator. *A. S. Baklagin and O. Ya. Shmelev.* **1983, No. 5, 1172 [156].**

Low-Noise Thyristor Switch for an Electric Furnace. *V. N. Grishanov.* **1983, No. 6, 1455 [185].**

A Programmable Digital Temperature Source. *A. P. Kraev and A. P. Apaev.* **1984, No. 1, 249 [225].**

Precision Microcomputer-Controlled Resistance Oven Temperature Regulator. *A. I. Fradkov.* **1984, No. 5, 1289 [221].**

Thermostat Based on a KR142EN Microcircuit. *S. A. Bogatchuk, A. V. Pedorenko, and A. I. Yavnyi.* **1984, No. 6, 1520 [197].**

Precision Temperature Regulator. *F. K. Skarzhinyuk.* **1985, No. 3, 733 [208].**

Variable Regulator of Manostat Temperature. *D. D. Prokof'ev.* **1985, No. 4, 985 [225].**

High-Power Low-Noise Temperature Regulator. *A. A. Belov and V. V. Bonch-Bruevich.* **1986, No. 3, 760 [228].**

Device for Measurement and Regulation of Temperature in Branch of Laser Adsorption Cell. *A. V. Mironov and P. S. Krylov.* **1986, No. 5, 1234 [224].**

Simple Proportional Temperature Regulator. *B. A. Borisov.* **1986, No. 6, 1473 [209].**

Device for Regulation of Specimen Temperature. *Yu. E. Zaitsev, Mungir Li, V. A. Pashinskii, and S. N. Skokov.* **1987, No. 5, 1073 [55].**

Programmable Two-Channel Temperature Regulator. *S. V. Ring and G. A. Nasyrov.* **1987, No. 5, 1246 [203].**

Automatic Temperature Controller for the Range of +20 to −185°C. *K. G. Bulatetskii and R. V. Neicheva.* **1988, No. 4, 1075 [205].**

Temperature Controller with Wide Functional Possibilities. *V. I. Kiselev and R. M. Sultanaev.* **1989, No. 5, 1248 [241].**

Target Unit for Radiation Studies of Metal Foils at Temperatures of from 78 K to the Melting Point. *V. F. Rybalko, S. M. Khazan, and A. I. Fedorenko.* **1989, No. 6, 1287 [50].**

General-Purpose Integrated-Circuit Digital Regulator. *V. G. Romanov and S. L. Sklyarenko.* **1980, No. 6, 1384 [65].**

Program Device for BTP Temperature Controller. *Z. A. Geleva and A. T. Pravdivtsev.* **1990, No. 3, 732 [223].**

17.1.3. Thermoelectric instruments

Apparatus for Cooling Photomultipliers by Means of Semiconductor Microrefrigerators. *V. S. Babaev, A. G. Zhiglinskii and E. S. Fedurkin.* **1977, No. 2, 584 [230].**

High-Efficiency Combined Branches for Film Thermopiles. *V. N. Vigdorovich, G. A. Ukhlinov, and N. I. Chibotaru.* **1978, No. 2, 521 [240].**

A Resistance Heater as a Thermocouple. *B. M. Bulakh, G. S. Pekar', and G. A. Kupchenko.* **1982, No. 3, 758 [215].**

A Thermoelectric Thermostat for a Thin-Film Phototropic Switch. *A. I. Gryadunov, V. A. Sadykov, and R. A. Petrenko.* **1984, No. 1, 247 [224].**

Thermoelectric Cooler Based on TÉMO-6 and TÉB-023 Modules. *L. B. Masleev and V. N. Nedashkovskii.* **1985, No. 3, 732 [207].**

Metal Holder for High-Temperature Measurements of Thermal Emf and Electrical Resistance. *A. T. Burkov and V. G. Dvunitkin.* **1985, No. 5, 1222 [210].**

Thermoelectric Attachment to UT-15 Thermostat to Obtain Temperatures Below 0°C. *N. P. Posnov and A. E. Demenev.* **1985, No. 5, 1235 [221].**

Thermoelectric Refrigerator for Gas Analyzer. *G. V. Bochin, V. I. Butyrskii, and L. N. Karaseva.* **1986, No. 6, 1460 [198].**

Controller for Thermoelectric Cooler. *S. S. Karvatskii and S. A. Zarubin.* **1987, No. 6, 1500 [195].**

TEKhRA-1 Thermoelectric Refrigerator for Electronic Apparatus. *A. N. Voronin, V. L. Gal'perin, I. V. Zorin, and A. S. Kudasov.* **1988, No. 5, 1351 [212].**

Low-Temperature Thermoelectric Thermostat. *E. I. Veliyulin, K. Sh. Kakhramanov, A. I. Gryadunov, A. A. Dormidontov, V. A. Kuznetsov, Ya. N. Agabalaev, L. Yu. Zarembo, and R. Kh. Lyapin.* **1989, No. 5, 1250 [243].**

17.1.4. Thermometry

Linear Temperature and Temperature Difference Sensor. *V. S. Semenov and Yu. É. Artemov.* **1977, No. 1, 301 [260].**

Method for Construction of Miniature Thermocouples with Variable Cross-Section Electrodes. *A. K. Fedyukovich and Yu. V. Vidin.* **1977, No. 1, 302 [261].**

Measurement of Surface Color Temperature. *G. D. Ivlev, Yu. F. Morgun, and V. N. Chizhevskii.* **1977, No. 2, 577 [224].**

Converter of Temperature into Pulse Frequency. *A. I. Ovcharenko, A. K. Solov'ev, and V. M. Trokhin.* **1977, No. 3, 709 [90].**

Determining Thermal Inertia Characteristic of a Microthermocouple. *M. M. Mal'gun and M. D. Sobolev.* **1977, No. 3, 836 [197].**

Quartz Thermometer with Oscillator Based on Field-Effect Transistors. *N. A. Novinskii, V. M. Zhilkin, and I. I. Evseev.* **1977, No. 3, 909 [255].**

Indirectly Heated Thermoresistor Based on Silicon Whisker Crystals. *V. S. Postnikov, S. A. Ammer, O. S. Eliseeva, and L. A. Andryukhina.* **1977, No. 4, 1218 [271].**

Approximation of Thermometric Characteristics of Thermodiodes of n- and p-GaAs in the Interval 4.2-300°K and of p-GaAs Resistance Thermometers in the Interval 4.2-100°K. *S. P. Logvinenko and S. L. Derbysheva.* **1978, No. 5, 1409 [229].**

Contactless Method of Measuring the Temperature and Absorbed Energy in Microwave Irradiation of Biological Specimens. *N. V. Mitrofanova, Yu. P. Timofeev, S. A. Fridman, and V. M. Shtemler.* **1978, No. 5, 1437 [254].**

Automatic Contact Thermometer. *G. P. Eremin and V. G. Kondratenko.* **1979, No. 1, 275 [257].**

A Laser Microrefractometer for Measuring Temperature Gradients in a Liquid. *V. A. Bazhinov, O. A. Evtikhieva, B. S. Rinkevichyus, and S. K. Sharov.* **1979, No. 2, 598 [280].**

Transistor Differential Temperature Transducer. *V. E. Remorov and V. A. Putintsev.* **1979, No. 6, 1647 [150].**

Detector for Measuring Local Heat Fluxes by the Thin-Disk Method. *Yu. F. Gortyshov, I. M. Varfolomeev, V. K. Shchukin, and L. Ya. Volkov.* **1979, No. 6, 1651 [154].**

Measurement of the Coefficient of Thermal Inertia of Thermocouples under Operating Conditions. *V. G. Zubov, N. G. Koval'chuk, I. D. Pytel', and K. S. Semenistyi.* **1979, No. 6, 1654 [156].**

Thin-Film Temperature Detector Based on Nickel Dimethylglyoximate. *S. V. Bulyarskii, N. F. Burbulya, G. N. Golban, and I. D. Samus'.* **1979, No. 6, 1656 [158].**

Influence of a Strong Magnetic Field on the Thermal emf of a Chromel–Copel Thermocouple. *N. N. Sirota, V. V. Petrashko, and Yu. A. Semenenko.* **1980, No. 1, 284 [273].**

Detectors for Simultaneous Magnetic Field and Temperature Measurement. *I. A. Bol'shakova, S. S. Varshava, T. A. Moskovets, and V. F. Chekurin.* **1980, No. 2, 526 [212].**

Resistance Thermometer with a Copper–Nickel Base. *V. A. Cherenkov.* **1980, No. 6, 1531 [191].**

Thermometer with Frequency Output. *A. G. Gritchin and S. D. Sozontov.* **1981, No. 3, 824 [241].**

A Current Stabilizer-for Resistance Thermometers. *V. B. Zhuze and G. E. Zubkov.* **1982, No. 3, 760 [216].**

Thermometer Based on the Oscillator Effect. *V. M. Bondar, E. A. Sidorenko, and V. V. Yakovlev.* **1982, No. 4, 1033 [229].**

Temperature Thermostat-Modulator for Reference Junctions of Thermocouples for Crystal-Growing Systems. *G. I. Vinogradova, K. M. Golant, and V. F. Kharlamov.* **1983, No. 1, 227 [184].**

Compensation Thermocouple with a Differential Pickup. *Ya. E. Kirson and E. E. Klotyn'sh.* **1983, No. 1, 237 [191].**

Radio-Frequency Electrodeless Tubes as Optical Temperature Indicators. *Ya. A. Sigulis.* **1983, No. 3, 723 [209].**

Measurement of Surface Temperature with a Time Resolution of 5 μsec. *K. N. Kasparov and A. I. Terpilovskii.* **1983, No. 6, 1421 [154].**

Automatic Control of the Operating Conditions of Nuclear Quadrupole Temperature Transducers. *A. M. Lenovenko, M. I. Osyka, and V. V. Repitskii.* **1984, No. 5, 1294 [225].**

Quartz-Crystal Thermometer. *O. Ya. Shmelev and V. I. Prokop'ev.* **1985, No. 5, 1220 [209].**

Use of Rubin-3 Thermal Sight for Dynamic Temperature Measurement. *V. V. Babichev, V. N. Baskakov, A. I. Kostoglotov, and Yu. I. Yunak.* **1985, No. 6, 1459 [197].**

Voltage-to-Time Converter for Thermometer. *A. I. Fedonin.* **1986, No. 1, 255 [218].**

Thin-Film Aluminum Resistance Thermometer. *O. S. Shemelina, Yu. F. Novototskii-Vlasov, and V. Ya. Cherepanov.* **1986, No. 4, 977 [200].**

Fabrication of Compact Thermocouples in Hermetic Sheaths. *A. K. Fedyukovich, V. V. Zamyatina, and Yu. V. Vidin.* **1986, No. 6, 1462 [199].**

High-Speed Temperature Sensor Based on Filamentary Crystals of Si-Ge Solid Solution. *O. I. Mavrin, P. P. Petrov, T. A. Stepko, and L. E. Khristosenko.* **1986, No. 6, 1470 [207].**

Effect of Magnetic Field on Thermoemf of Pd + Cr + Os/Cu + Fe Thermocouple. *E. M. Gololobov, V. V. Petrashko, and Yu. A. Semenenko.* **1986, No. 6, 1474 [210].**

Fiber-Optic Thermometer. *A. S. Ryabov, V. N. Mavrin, A. V. Mazur, S. K. Morshnev, and A. V. Frantsesson.* **1987, No. 1, 235 [215].**

Miniature Resistance Thermometers Based On GaAs Filamentary Crystals for the Range of 0.4-300°K. *S. S. Varshava, G. A. Kytin, A. A. Manenkov, G. N. Mikhailova, V. F. Troitskii, and K. S. Shcherbal.* **1987, No. 1, 239 [219].**

Thermal Indicators based on Permalloy Films with Banded Domain Structure for Measurement and Display of Temperature Fields. *A. G. Ravlik, V. N. Samofalov, Yu. V. Zolotnitskii, E. G. Kedrova, and T. S. Shishatskaya.* **1988, No. 3, 808 [241].**

Direct-Reading Temperature Meter. *V. N. Kondrat'ev.* **1989, No. 3, 746 [224].**

Fabrication of High-Speed Thermocouple. *A. K. Fedyukovich, Yu. V. Vidin, and V. V. Zamyatina.* **1990, No. 3, 730 [222].**

Procedure for Sensitivity Calibration of Temperature-Burst Method. *Yu. A. Gel'man, B. S. Podol'skii, and V. A. Ukraintsev.* **1990, No. 6, 1442 [191].**

Bismuth-Based Thin-Film Thermistor. *R. M. Nigmatullin, M. G. Shibanov, A. A. Kurmanbaeva, and S. P. Pak.* **1990, No. 6, 1444 [193].**

17.2. Cryogenic techniques

Cryogenic Flange Joint. *V. F. Solyanko, T. P. Boiko, and K. A. Kudryavtseva.* **1977, No. 4, 1216 [270].**

Evaporative Thermal Siphons for Intensifying Heat Exchange. *E. A. Kolenko.* **1978, No. 1, 254 [237].**

Self-Opening Valve for Nitrogen Decanting Siphon. *S. A. Melikyan and R. T. Mina.* **1979, No. 2, 588 [272].**

Stabilizer for Low and Infralow Temperatures. *V. I. Voronin.* **1980, No. 6, 1533 [193].**

A Sapphire Cold Conductor for Obtaining Intermediate Temperatures. *S. Yu. Volkov, B. N. Grechushnikov, B. K. Sevast'yanov, and V. B. Tsvetkov.* **1981, No. 2, 555 [251].**

Simple Method for Cooling Samples to 77°K Not Requiring Immersion of Samples in a Cryostat. *A. I. Elizarov.* **1981, No. 3, 832 [248].**

Heat Capacity or BF Glues at Low Temperatures. *P. G. Vasil'ev.* **1982, No. 3, 781 [233].**

Vapor-Pressure Regulator for Cryogenic Liquids. *S. N. Bun'kov, L. I. Makarov, and V. L. Masalov.* **1983, No. 2, 492 [228].**

Lock Device for Sealed Cryogenic Chambers. *N. Z. Rudenko and V. N. Shchelkunov.* **1983, No. 6, 1463 [192].**

Electrical and Magnetic Properties of Manganin at Low Temperatures. *V. M. Beilin, L. A. Serebrenik, and V. A. Fradkov.* **1985, No. 1, 263 [235].**

Simple Method for Elimination of Thermoacoustic Oscillations in Cryogenic Tubes. *S. P. Gorbachev, A. L. Korolev, V. K. Matyushchenkov, and V. A. Sysoev.* **1986, No. 1, 258 [220].**

Elastic Vacuum Seal for Cryogenic Temperatures. *E. A. Kolenko.* **1987, No. 6, 1502 [197].**

Radiation Shield–Heat Remover for Device for Specimen Insertion into Low-Temperature Zone. *S. T. Boldarev, R. G. Amamchyan, V. M. Mishachev, and Yu. G. Aleksandrov.* **1991, No. 1, 236 [224].**

System for Formation and Injection of Solid-Hydrogen Pellets. *V. I. Karpukhin, M. N. Novikov, and M. O. Shvets.* **1991, No. 3, 734 [235].**

Thermal Switch with Superfluid ^{4}He. *É. Ya. Rudavskii, V. K. Chagovets, and G. A. Sheshin.* **1991, No. 4, 990 [226].**

High-Power Continuous CO_2 Laser with Cryogenic Cooling. *B. I. Vasil'ev, O. A. Evin, I. D. Tasmagulov, and P. V. Shatokhin.* **1991, No. 5, 1164 [164].**

17.2.1. Measurement of low temperatures

Widerange Carbon Thermometers for Low Temperatures. *S. F. Vorfolomeev, L. A. Pekal'n, B. I. Al'shin, G. S. Abilov, L. B. Belyanskii, T. S. Pan'kiv, G. A. Kytin, and D. N. Astrov.* **1977, No. 1, 304 [262].**

Low-Temperature Resistive Pickups Based on Single-Crystal Layers of a Ge+Si Solution on a Ceramic. *R. Sh. Ibragimov, S. P. Logvinenko, and A. A. Velichko.* **1978, No. 4, 1138 [268].**

Measurement of Temperatures in the Liquid Helium Region under Pressure. *E. S. Itskevich and V. F. Kraidenov.* **1978, No. 6, 1640 [164].**

Gallium-Arsenide Diode Temperature Sensors. *L. P. Ivanov, M. E. Korenman, V. G. Lakhtikova, and G. L. Prikhod'ko.* **1979, No. 1, 273 [256].**

Semiconductor Resistance Thermometers for the Interval 300-0.3°K. *K. N. Zinov'eva, L. I. Zarubin, I. Yu. Nemish, F. M. Vorobkalo, and S. T. Boldarev.* **1979, No. 3, 845 [214].**

Low-Temperature Gas Thermometers. *B. V. Petunin and E. G. Son.* **1979, No. 5, 1438 [226].**

Thermal Transducer Based on Resistive Alloy Ni + Mn. *V. A. Cherenkov, I. L. Rogel'berg, and V. M. Beilin.* **1979, No. 6, 1649 [153].**

Calibration of TSC-2 Germanium Thermometers and Composition Carbon Thermometers Down to 0.5°K. *L. P. Mezhov-Deglin, G. A. Kytin, and S. F. Varfolomeev.* **1980, No. 4, 1054 [233].**

Cryogenic Resistance Thermometer Based on Cu+Ni+Fe+Mn Alloy. *V. A. Cherenkov and V. M. Beilin.* **1980, No. 5, 1319 [241].**

A Resistance Thermometer Only Slightly Sensitive to the Action of Magnetic Fields. *V. A. Cherenkov and V. Yu. Ivanov.* **1981, No. 2, 557 [253].**

Indium-Film Resistance Thermometers for Low Temperatures. *M. T. Kostyshin and V. S. Koseko.* **1981, No. 4, 1095 [252].**

TVO Carbon Resistors for Temperature Measurements in the Range 4.2-450°K. *V. I. Datskov.* **1981, No. 4, 1096 [253].**

Behavior of TSKUM Carbon and KGG Semiconductor Thermometers in a Magnetic Field up to 18 T. *M. N. Khlopkin and P. A. Cheremnykh.* **1981, No. 4, 1098 [255].**

Low-Temperature Measuring Device. *I. M. Vikulin, Sh. D. Kurmashev, V. I. Andreev, V. I. Gin'ko, and O. P. Dem'yanchuk.* **1981, No. 5, 1334 [218].**

Germanium Resistance Thermometers for Ultralow Temperatures. *K. N. Zinov'eva, V. V. Vainberg, F. M. Vorobkalo, L. I. Zarubin, and S. T. Boldarev.* **1982, No. 5, 1277 [198].**

Carbonaceous Microcomposite Low-Temperature Resistance Thermometer. *G. N. Dul'nev, I. K. Meshkovskii, A. F. Novikov, V. A. Shavkunova, and A. D. Chernopol'skii.* **1983, No. 1, 230 [186].**

Thermometric Properties of a KT629A Silicon Transducer and Electronic Temperature Stabilization in the 1-300°K Range. *V. K. Ignat'ev and V. M. Pudalov.* **1983, No. 1, 232 [187].**

Thermoelectric Properties of the Pd + Cr + Os/Cu + Fe Low-Temperature Thermocouple. *E. M. Gololobov, V. V. Petrashko, and Yu. A. Semenenko.* **1983, No. 1, 235 [190].**

Influence of a Magnetic Field on the Thermal EMF of Low-Temperature Thermocouples. *G. S. Abilov, B. I. Al'shin, V. M. Beilin, L. A. Medvedeva, and N. G. Flerov.* **1983, No. 1, 239 [193].**

Low-Temperature Enhanced-Precision Thermal Converter with Heat Transfer. *S. P. Logvinenko and O. A. Rossoshanskii.* **1984, No. 3, 773 [223].**

Low-Temperature Calorimeter with a Heat-Flux Sensor. *V. I. Kosov, V. M. Malyshev, G. A. Mil'ner, and V. F. Shibakin.* **1984, No. 5, 1255 [191].**

Measuring the Specific Heat of Resistive Heat-Sensitive Elements at Cryogenic Temperatures. *V. I. Datskov, E. D. Kleshchenko, and S. V. Muntyan.* **1985, No. 1, 260 [233].**

Calorimeter with Dismountable Seal for Low-Temperature Research. *V. N. Naumov and V. V. Nogteva.* **1985, No. 5, 1194 [186].**

Automatic Low-Temperature Calorimeter. *V. M. Malyshev, G. A. Mil'ner, E. L. Sorkin, and V. F. Shibakin.* **1985, No. 6, 1456 [195].**

Comparative Specifications of Engineering Thermometers for Low Temperatures. *L. S. Tyan, E. N. Yurkov, M. P. Kozyreva, and B. I. Al'shin.* **1986, No. 1, 259 [222].**

Capacitors as Temperature Sensors. *C. Bazan and S. Matyjasik.* **1986, No. 3, 750 [221].**

Resistance-to Voltage Converter for Low-Temperature Carbon Thermometers. *V. I. Trotsenko, I. M. Karnaukhov, A. A. Lukhanin, and V. F. Chechetenko.* **1987, No. 2, 461 [189].**

Superconducting Rhenium Bolometer. *I. Yu. Borisenko, L. P. Mezhov-Deglin, and V. Zh. Rozenflants.* **1987, No. 5, 1256 [211].**

Wideband Magnetic Thermometer Based on Ytterbium-Aluminum Garnet. *A. P. Dodokin, D. D. Perlov, and A. A. Sorokin.* **1988, No. 5, 1357 [217].**

Crystallization Thermometer with Tunnel-Diode Oscillator for Measurement of Ultralow Temperatures. *V. A. Mikheev, G. D. Movsesyan, K. Z. Babayan, R. T. Mina, V. A. Maidanov, N. P. Mikhin, V. K. Chagovets, and G. A. Sheshin.* **1989, No. 1, 259 [226].**

Measurement of Low Temperatures in Magnetic Fields with Platinum Resistance Thermometers. *G. S. Abilov, I. A. Razhba, and D. N. Astrov.* **1989, No. 2, 500 [215].**

Low-Temperature Resistance Thermometers of Carbon Composite Material. *I. K. Meshkovskii, A. F. Novikov, V. V. Sologub, and M. L. Tatarinova.* **1989, No. 5, 1254 [246].**

Cryogenic Resistance Thermometers with Linear Characteristics. *V. A. Cherenkov and A. I. Tsapin.* **1990, No. 2, 493 [232].**

Highly Sensitive Cryogenic Thermocouples. *V. A. Cherenkov, A. I. Tsapin, and S. V. Khangulov.* **1990, No. 2, 495 [233].**

Thin-Film Bismuth Thermistor. *N. O. Ivanova and A. I. Chalyi.* **1990, No. 5, 1236 [236].**

17.2.2. Monitoring of cryogenic-liquid level

Floating Level Gauge for Liquid Helium. *G. P. Shemonaev, V. I. Makhan'kov, and I. S. Sidorenko.* **1977, No. 5, 1504 [229].**

System of Automatic Replenishment of the Liquid Helium Supply in a Cryostat. *E. A. Amelin, V. M. Boichuk, A. F. Bondar', A. P. Vakhmenin, and L. P. Sosnenko.* **1978, No. 3, 805 [232].**

Capacitive Level Meter. *V. P. Peshkov and A. N. Vetchinkin.* **1978, No. 4, 1140 [270].**

Supply of Liquid Nitrogen to Cooled Installations. *V. A. Ryzhkov and A. Yu. Pal'chevskii.* **1978, No. 5, 1439 [256].**

Helium Level Gauge with Semiconductor Sensor. *M. A. Arutyunyan and G. D. Movsesyan.* **1979, No. 2, 586 [270].**

Monitor for Level of Liquid Nitrogen. *T. S. Voznyi.* **1979, No. 2, 587 [271].**

Contact Cryogenic Fluid Level Sensor. *V. N. Pavlov and Ya. Konichek.* **1979, No. 3, 864 [231].**

Pulsed Power Circuit for a Liquid Helium Floating Level Gauge. *V. I. Makhan'kov, A. A. Mats'ko, and G. P. Shemonaev.* **1980, No. 2, 535 [220].**

Automatic Level Regulator for Liquid Nitrogen. *V. I. Piskarev.* **1980, No. 6, 1535 [195].**

Carbon-Resistor Sensor for a Discrete Helium-Level Indicator. *V. I. Lavrent'ev and V. V. Churakov.* **1984, No. 5, 1261 [196].**

Thermoregulator and Helium-Level Indicator Using MK-64 Pocket Calculator. *S. V. Bogdanov and N. Ya. Donchenko.* **1987, No. 1, 242 [222].**

Calorimetric Liquid-Helium Flow Meter. *A. I. Ageev, Yu. G. Bozhko, A. V. Zhirnov, V. A. Krendelev, E. G. Proshchaev, A. V. Tarasov, V. N. Fedorchenko, and V. P. Fomin.* **1987, No. 4, 1008 [225].**

Thermal Controller of Coolant Flow Rate. *S. I. Dubinskii, A. G. Savchenko, and V. Z. Suplin.* **1988, No. 3, 817 [249].**

Helium-Level Meter. *A. V. Andrianov, A. N. Vasil'ev, Yu. P. Gaidukov, and I. V. Romanenko.* **1988, No. 5, 1360 [219].**

17.2.3. General-purpose cryostats

Device for Obtaining Temperatures of 4.2-300°K with Considerable Heat Flow into Specimen. *V. I. Silaev, A. I. Belyaeva, and Yu. N. Stel'makhov.* **1977, No. 3, 864 [220].**

Cryostat for Adjustable Cooling of an Open Refrigeration Tube. *V. M. Boichuk, E. A. Amelin, N. N. Volikov, G. V. Pevitskii, and V. E. Losev.* **1978, No. 2, 544 [261].**

Nonmagnetic Helium Cryostat of Fiberglass. *E. A. Amelin, Yu. K. Belan, V. M. Boichuk, V. M. Vasilevskii, and E. A. Moiseenko.* **1978, No. 3, 809 [235].**

Helium Cryostat for Continuous Maintenance of Temperatures Below 4.2°K. *Ya. S. Kan and V. A. Frolov.* **1980, No. 5, 1315 [237].**

A Thermostatic Cell for Intermediate Temperatures in the Range 4.2-600°K. *A. A. Mamalui and A. N. Medyanik.* **1981, No. 5, 1333 [217].**

Miniature Cryostat with a Controlled Adsorption Pump. *V. M. Malyshev, G. A. Mil'ner, and V. F. Shibakin.* **1983, No. 3, 734 [220].**

Cryostat for Use at 1.5-300°K. *A. A. Shikov.* **1983, No. 5, 1247 [218].**

Cryostats for Measurements at Temperatures of 2-400°K and in Magnetic Fields of Up to 7 T. *N. A. Asadullaev.* **1987, No. 2, 494 [216].**

Economical Fiberglass Helium Cryostat. *V. V. Shapovalenko and I. M. Smirnov.* **1987, No. 3, 752 [223].**

Fiberglass Helium Cryostat. *V. V. Shapovalenko, V. M. Vasilevskii, S. I. Bondarenko, and E. A. Moiseenko.* **1990, No. 1, 244 [224].**

Effect of Insulation Design on Reserve of Fiberglass Helium Cryostat. *V. V. Shapovalenko, V. M. Vasilevskii, S. I. Bondarenko, E. A. Moiseenko, and I. M. Smirnov.* **1990, No. 1, 247 [227].**

Nitrogen Cryostat with Temperature Control and Forced Cooling of Specimen. *A. R. Volkov and V. N. Fonov.* **1990, No. 2, 491 [230].**

17.2.4. Optical cryostats

Glass Helium Cryostat for Optical and Magnetooptical Investigations. *R. I. Dzhioev and I. P. Shiryapov.* **1977, No. 3, 911 [256].**

Cryostat with Continuous Helium Flux for Optical Investigations at a Fixed High Pressure. *V. B. Anzin, Yu. V. Kosichkin, Yu. N. Kotlov, and A. I. Nadezhdinskii.* **1977, No. 3, 912 [257].**

Small Flow-Through Cryostat for Polarization Microscope. *V. I. Silaev, A. I. Belyaeva, and Yu. N. Stel'makhov.* **1977, No. 4, 1206 [260].**

Attachment for UR-10 Spectrophotometer for Study of Small Objects at Low Temperatures. *I. G. Bronshtein, V. T. Prokopenko, V. S. Rondarev, and A. D. Yas'kov.* **1978, No. 1, 247 [230].**

Cryostat for an IKS-21 Spectrometer. *A. S. Kinduris.* **1978, No. 3, 803 [231].**

Dismountable Magnetooptical Cryostat with Superconducting Solenoid at 83 kOe. *D. M. Gureev, I. I. Zasavitskii, and B. N. Matsonashvili.* **1978, No. 3, 816 [242].**

Low-Temperature Attachment for VMR-2 Vacuum Monochromator. *A. I. Galuza, A. P. Kirichenko, and E. R. Rudavin.* **1978, No. 6, 1657 [180].**

Universal Cryostat Attachment for the SF-4A Spectrophotometer. *A. A. Andreev and A. I. Vikhorev.* **1978, No. 6, 1658 [181].**

Magnetooptical Cryostat for Temperatures below 1°K. *G. Liid'ya.* **1979, No. 3, 842 [211].**

Vacuumless Cryostat for Optical Investigations of Semiconductors. *A. N. Lukin, V. A. Yukish, and V. S. Kavetskii.* **1979, No. 3, 863 [230].**

Flowthrough Optical Cryostat for a Superconducting Solenoid. *V. I. Silaev, Yu. E. Stetsenko, A. I. Belyaeva, Yu. N. Stel'makhov, and G. S. Egiazaryan.* **1979, No. 5, 1440 [228].**

An Optical Cryogenic Illuminator. *V. F. Solyanko and V. A. Kondratskii.* **1979, No. 5, 1442 [230].**

Cell for Studying Infrared Spectra of Adsorbed Molecules at Liquid Helium Temperatures. *A. A. Tsyganenko.* **1980, No. 1, 265 [255].**

Illuminating Attachment with a Cryostat to Single-Beam Infrared Spectrometers. *B. F. Bilen'kii and Yu. V. Danilyuk.* **1980, No. 4, 1057 [237].**

Nitrogen Liquid-Vapor Refrigerator for Spectral Studies. *Yu. G. Nadtochii and N. A. Chumaevskii.* **1981, No. 1, 282 [265].**

Vacuum-Tight Cement Mounting of Optical Windows in Crystals. *V. K. Klinkov and Yu. G. Nadtochii.* **1981, No. 2, 539 [236].**

A Cryothermostat for Optical Use in the Range 77-400°K. *P. A. Askarov, V. V. Evstropov, A. S. Malkin, and Yu. M. Shernyakov.* **1981, No. 5, 1329 [214].**

A Small Flow Cryostat for Spectral and Magnetooptic Use. *Yu. E. Stetsenko, G. S. Egiazaryan, A. I. Belyaeva, and V. I. Silaev.* **1981, No. 5, 1331 [215].**

Cryostat Attachment for Fluorescent Spectrophotometers. *L. V. Levshin, A. V. Naumov, A. M. Saletskii, and V. I. Yuzhakov.* **1982, No. 2, 500 [198].**

A Flow Cryostat for Operating a Polarizing Microscope in Reflection. *Yu. E. Stetsenko, A. I. Belyaeva, and V. I. Silaev.* **1982, No. 5, 1312 [225].**

Miniature Optical Cryostat for a Semiconductor Laser with Temperature Stabilization. *Yu. V. Kosichnik, Yu. N. Kotlov, P. V. Kryukov, A. I. Kuznetsov, A. I. Nadezhdinskii, V. I. Pelipenko, A. N. Perov, and E. V. Stepanov.* **1983, No. 4, 996 [228].**

Controlled-Temperature Cryostat for Magnetooptical Measurements. *I. I. Zasavitskii, A. A. Izvoryan, B. N. Matsonashvili, V. F. Troitskii, and V. T. Trofimov.* **1984, No. 4, 1013 [199].**

Optical Cryostat with Cooled Modulator. *I. N. Syrgavbekov, V. V. Bunegin, and I. A. Karapatnitskii.* **1985, No. 3, 736 [211].**

Simple Chamber for Low-Temperature Optical Studies. *I. A. Vasil'ev.* **1987, No. 2, 493 [215].**

Low-Temperature Cell for Magnetooptic Studies with Laser Excitation. *V. V. Valyavko and V. P. Osipov.* **1987, No. 6, 1495 [192].**

Optical Cryostat with Magnetic System. *A. P. Perov and N. F. Vedernikov.* **1988, No. 3, 811 [244].**

Optical Flow-Through Cryostat with Improved Protection from Cryocondensation. *A. I. Belyaeva, I. M. Motora, V. I. Silaev, and Yu. E. Stetsenko.* **1988, No. 5, 1361 [220].**

Compact Continuous-Flow Cryostat for LÉF-3M Laser Ellipsometer. *G. S. Egiazaryan and I. M. Motora.* **1989, No. 5, 1252 [245].**

Compact Cryostat for Spectroscopy of Combination Scattering. *A. A. Vakulin, A. V. Shavlov, and L. A. Platonova.* **1990, No. 5, 1233 [234].**

17.2.5. Special-purpose cryostats

Cryostat for Neutron Diffraction from Specimens under High Pressure. *B. A. Vindryaevskii, S. N. Ishmaev, V. D. Podshibyakin, I. P. Sadikov, A. A. Chernyshov, V. A. Sukhoparov, and A. S. Telepnev.* **1980, No. 4, 1046 [225].**

Cryostat for Deforming Crystals on Regel'–Dubov Relaxometer. *B. P. Koman and Z. L. Shevkis.* **1980, No. 5, 1317 [239].**

Cryostat for Thin Film Studies in Ultrahigh Vacuum. *O. I. Kapusta and V. G. Nazin.* **1982, No. 2, 505 [202].**

Small Cryostat for Cooling a Photomultiplier. *A. A. Samokhvalov, Yu. I. Sukhorukov, and A. F. Gunichev.* **1982, No. 4, 1039 [234].**

Low-Temperature Attachment to X-Ray Diffractometer. *A. P. Perov.* **1984, No. 3, 776 [226].**

Cryostats for μSR Experiments. *V. G. Grebinnik, V. A. Zhukov, A. B. Lazarev, A. P. Manych, B. A. Nikol'skii, V. I. Selivanov, G. I. Selivanov, and V. A. Suetin.* **1984, No. 5, 1101 [51].**

Circulating Cryostat for Diffractometer for Structure Research at Temperature of 4.2-300°K. *A. S. Bulatov and V. F. Dolzhenko.* **1985, No. 5, 1218 [206].**

Nitrogen Cryostat for Study of Mössbauer Scattering. *V. S. Goryachev, V. M. Novikov, and P. I. Romasheva.* **1986, No. 4, 981 [204].**

Compact Cryogenic Attachment for Mössbauer Spectroscopy with Microwave Excitation. *N. P. Didenko, G. P. Amelin, V. I. Zelentsov, V. L. Kaminskii, N. P. Fedorov, and V. M. Fal'kovich.* **1988, No. 4, 1045 [182].**

Helium Cryostat for Diffractometer for Structure Studies in Strong Magnetic Fields. *A. S. Bulatov and V. F. Dolzhenko.* **1988, No. 6, 1578 [179].**

Low-Temperature X-ray Camera. *V. I. Bondar', V. E. Danil'chenko, and A. I. Tarnavskii.* **1989, No. 1, 224 [196].**

Flow-Through Cryogenic Cell for X-Ray Diffraction Studies. *O. P. Zakharov, V. I. Silaev, and Yu. E. Stetsenko.* **1989, No. 6, 1428 [172].**

Cryostat for Study of Microwave Noise at Temperatures of 10-300 K. *R. D. Aitov, A. I. Maslov, and K. S. Rzhevkin.* **1990, No. 2, 488 [227].**

17.2.6. ^{3}He cryostats

Optical Cryostat for Studies at Temperatures Down to 0.5°K. *L. P. Mezhov-Deglin, V. I. Revenko, and A. F. Dite.* **1979, No. 6, 1658 [160].**

Simple Cryostat for Obtaining a Temperature Down to 0.3°K. *V. F. Khirinyi.* **1980, No. 1, 281 [270].**

Acoustic Device for Determining the Isotopic Composition of a ^{3}He + ^{4}He Gas Mixture. *L. B. Parfenov and A. F. Prudkoglyad.* **1982, No. 5, 1296 [213].**

Portable ^{3}He Refrigerator. *V. F. Troitskii and A. B. Fradkov.* **1984, No. 2, 483 [210].**

Nuclear-Demagnetization Cryostat and Cryostat for Dissolving ^{3}He in ^{4}He with High Cooling Performance. *A. S. Borovik-Romanov, Yu. M. Bun'ko, V. V. Dmitriev, Yu. M. Mukharskii, and G. K. Tvalishvili.* **1985, No. 3, 707 [185].**

Cryostat with ^{3}He-Vapor Evacuation. *M. E. Gershenzon, Yu. E. Zhuravlev, and M. I. Falei.* **1986, No. 4, 979 [202].**

^{3}He Refrigerator Insert for Measurements at 0.32-300 K. *B. I. Savel'ev and V. L. Tsymbalenko.* **1987, No. 4, 1006 [223].**

Cryostat with Cryogetter Evacuation of ^{3}He Vapor and Fast Specimen Change. *O. V. Zharikov, A. M. Kokotin, and A. V. Pal'nichenko.* **1988, No. 6, 1590 [189].**

Valveless Two-Stage Dissolution Refrigerator with Internal ^{3}He Circulation. *S. T. Boldarev, R. G. Amamchyan, M. A. Arutyunyan, R. T. Mina, and G. D. Movsesyan.* **1989, No. 2, 473 [193].**

Refrigerator Module for Independent ^{3}He Cryostat. *V. M. Mishachev, R. G. Amamchyan, S. T. Boldarev, M. V. Belen'kii, and S. V. Favorskaya.* **1990, No. 2, 486 [226].**

17.2.7. Superconducting devices

Superconducting Bolometers (Review). *I. A. Khrebtov.* **1984, No. 4, 781 [5].**

Correction of the Frequency Characteristics of Bolometers. *A. V. Afonin, V. P. Korotkov, and I. A. Khrebtov.* **1979, No. 1, 163 [154].**

Stabilization of the Sensitivity of a Bolometer. *G. A. Zaitsev, V. P. Korotkov, and I. A. Khrebtov.* **1979, No. 1, 166 [156].**

High-Speed Superconducting Bolometer Based on Double Films of Ag + Sn. *G. A. Zaitsev and I. A. Khrebtov.* **1979, No. 2, 568 [254].**

Use of a PMT-3 Microhardness Tester in Making Josephson Bridges. *Yu. I. Latyshev.* **1981, No. 3, 780 [201].**

Setup for Measuring Critical Currents in High-Current Superconductors by the Induction Method. *V. V. Andrianov, V. P. Baev, and S. S. Ivanov.* **1982, No. 2, 452 [158].**

Instrument with a Superconducting Transformer for Studying High-Current Superconductors. *L. S. Shirshov and G. Énderlein.* **1982, No. 2, 455 [160].**

Electrochemical Oxidation of Nb + Ti Alloy Wire. *V. K. Ignat'ev.* **1982, No. 3, 777 [230].**

A Superconducting Switching Device. *V. I. Mikhailov, Yu. L. Baev, and V. A. Pavlyuk.* **1982, No. 4, 997 [196].**

Apparatus for the Study of Dissipative Processes in Type-II Superconductors Using Torsional Vibrations. *Dzh. G. Chigvinadze, A. G. Dzhagarov, V. S. Nadareishvili, and T. A. Dzhapiashvili.* **1984, No. 5, 1257 [192].**

Superconducting Conductivity-Modulator for Wide Helium-Temperature Range. *Yu. N. Tszyan.* **1985, No. 1, 224 [202].**

Squid-Based Residual-Resistance Meter for Pure Metals. *S. Meszaros, K. Vad, and D. Novak.* **1985, No. 6, 1424 [167].**

Squid-Based Picovoltmeter for Measuring Resistance of Metals at Low Temperatures and Volt–Ampere Characteristics of Superconductor Structures. *I. Ya. Krasnopolin.* **1985, No. 6, 1427 [170].**

High-Speed Superconducting Foil Breakers. *G. P. Amelin, A. I. Bludov, V. I. Gusel'nikov, and A. I. Mashchenko.* **1986, No. 5, 1199 [193].**

Calorimeter for Measurement of Surface Electromagnetic Losses in Superconductors. *I. V. Matveev, E. A. Khalyavin, and S. B. Bugorskii.* **1986, No. 6, 1426 [169].**

Instrument for Measurement of Volt-Ampere Characteristics of Josephson Tunnel Contacts. *A. P. Grebenkin and V. A. Iovchik.* **1987, No. 4, 1010 [226].**

Inductance-Bridge for Study of High-Temperature Superconducting Films. *I. D. Voitovich and V. P. Zholob.* **1990, No. 3, 728 [220].**

17.2.8. Instruments for measurements at low temperatures

Measurement of Low-Temperature Specific Heat of Metals under Pressure. *E. S. Itskevich, V. F. Kraidenov, and V. S. Syzranov.* **1977, No. 3, 866 [221].**

Method of Applying Strong Electric Fields in ESR at Low Temperatures. *R. Sh. Usmanov.* **1977, No. 4, 1204 [258].**

Modified Method of Pulsed Condensation of Matrix for Spectrocryogenic Research. *O. G. Garkusha.* **1978, No. 2, 478 [200].**

Recording of Luminescence Spectra of Organic Compounds at the Temperature of Liquid Nitrogen. *A. M. Noskov.* **1978, No. 3, 796 [223].**

Apparatus for the Measurement of the Thermal Conductivity of Solidified Gases at Constant Volume. *V. G. Gavrilko and A. I. Bondarenko.* **1978, No. 6, 1633 [158].**

Device for Uniaxial Deformation of Whisker Crystals at Helium Temperatures in a Magnetic Field. *Yu. P. Gaidukov, N. P. Danilova, and M. B. Shcherbina-Samoilova.* **1979, No. 1, 267 [250].**

Use of Liquefied Gases in Optical Low-Temperature Chamber with Fixed Pressure. *M. I. Eremets and A. M. Shirokov.* **1979, No. 2, 562 [248].**

Calorimeter for Measuring the Heat Capacity of Small Specimens at Low Temperatures. *N. M. Gavrilov, V. M. Polovov, and R. R. Ponomareva.* **1979, No. 5, 1422 [213].**

Cryogenic-Vacuum Attachment for Obtaining Molecular Complexes and Performing Spectrophotometric Analysis. *E. D. Radchenko, G. G. Sheina, and Yu. P. Blagoi.* **1980, No. 1, 262 [252].**

Wire Resistors which Can Stand Multiple Cooling Down to Liquid Helium Temperatures. *N. A. Pankratov, N. I. Narykin, and V. G. Malyarov.* **1980, No. 1, 283 [271].**

Optron Pair at Cryogenic Temperatures. *L. A. Mikheenko and V. P. Sherbatskii.* **1980, No. 6, 1532 [192].**

Temperature Stabilization of Samples at Low Temperatures in an Ultrahigh Frequency Field. *A. P. Dem'yanchuk and E. V. Kovalenko.* **1981, No. 3, 830 [247].**

1 kA Current Lead-Ins for Superconducting Solenoids Operating in Transportable Dewar Vessel. *L. S. Shirshov and G. Énderlein.* **1981, No. 5, 1336 [220].**

Setup for Studying the Kerr Effect at Low Temperatures. *S. A. Tyurin, M. V. Khashchina, V. I. Matveev, and E. A. Kalinichenko.* **1981, No. 6, 1502 [158].**

Performance of Semiconductor Photodiodes at Cryogenic Temperatures. *V. V. Baraboshkin and V. M. Tsvgankov.* **1982, No. 1, 277 [242].**

Device for Generating Monoaxial Pressure in an Electron Paramagnetic Resonance Generator at Liquid Helium Temperatures. *A. A. Bugai and V. E. Kustov.* **1982, No. 1, 279 [244].**

Simple Cryogenic Current Leads. *S. P. Gorbachev and V. K. Matyushchenkov.* **1982, No. 1, 280 [245].**

Behavior of Overloaded Cryogenic Current Leads. *Yu. L. Buyanov.* **1982, No. 2, 508 [205].**

Automated System for Continuous Recording of Characteristics of Commercial Superconductors. *A. N. Erokhin, V. F. Kurshetsov, and L. S. Shirshov.* **1983, No. 1, 168 [141].**

An Automatic Spectrometer for Low-Temperature Measurements in the Range 0.8-45 μm. *A. A. Kopylov, S. P. Medvedev and V. I. Smirnov.* **1983, No. 2, 421 [166].**

Coaxial Microwave Liquid-Helium-Vacuum Junction. *V. S. Gaevskii, A. G. Denisov, and S. P. Kuzenkov.* **1983, No. 2, 494 [230].**

Apparatus for Measuring the Magnetization of Stainless Steel at 4.2°K. *F. Gemeri, K. F. Gertsev, and L. S. Shirshov.* **1983, No. 6, 1437 [168].**

Cell for Measurement of Thermal Conductivity of Cryogenic Crystals. *Yu. G. Kravchenko, I. N. Krupskii, A. P. Nazarenko, and G. P. Chausov.* **1984, No. 5, 1296 [227].**

Cryogenic Leads with Braided Heat Exchangers. *V. D. Bartenev, V. I. Datskov, and Yu. A. Shishov.* **1984, No. 5, 1298 [228].**

Pneumatic Press for Low-Temperature Optical Measurements with Uniaxial Deformation. *A. P. Abramov, I. N. Abramova, I. Ya. Gerlovin, and I. K. Razumova.* **1985, No. 1, 258 [231].**

Displacement Meter for Laboratory Studies at Cryogenic Temperatures. *V. I. Kabanov and V. V. Plotnikov.* **1985, No. 3, 715 [192].**

15-Ton Press for Measurement of Isothermal Compression of Condensed Gases at 4.2°K. *A. N. Utyuzh.* **1986, No. 4, 984 [206].**

Measurement of Thermo-EMF of Metals at Low Temperatures under Pressure. *S. L. Bud'ko, A. G. Gapotchenko, E. S. Itskevich, and V. F. Kraidenov.* **1986, No. 5, 1193 [189].**

Cryogenic Exploding-Wire Breaker. *G. P. Amelin, A. I. Bludov, V. I. Gusel'nikov, N. M. Kolyadin, Yu. D. Kuroedov, and A. I. Mashchenko.* **1986, No. 5, 1196 [191].**

Low-Temperature Radio-Frequency Matching Device. *A. V. Golik, A. P. Korolyuk, and V. I. Khizhnyi.* **1987, No. 2, 491 [213].**

Measurement of Helium Density and Vapor Content by Means of Microwave Resonators. *A. M. Arkharov, A. G. Grechko, G. I. Kiknadze, P. A. Maisuradze, A. G. Pleshch, and A. N. Safronov.* **1988, No. 1, 174 [151].**

Cooled Input Transformer for High-Speed Superconductor Bolometers. *M. V. Sosnenko, A. D. Tkachenko, and I. A. Khrebtov.* **1988, No. 1, 234 [202].**

Apparatus based on Fourier Spectrometer for Low-Temperature Studies of Highly Reflective Specimens in the Long-Wave Infrared Region. *N. Yu. Boldyrev, V. M. Burlakov, and S. V. Shul'ga.* **1989, No. 5, 1204 [204].**

Automated Fourier Spectrometer for Low-Temperature Measurements at 10-650 cm^{-1}. *V. A. Vasil'ev, P. E. Dyshlovenko, A. A. Kopylov, and A. N. Kholodilov.* **1990, No. 5, 1161 [174].**

Multiconductor Lead for Operation in Liquid Helium. *V. I. Bondarenko, L. B. Dinaburg, A. B. Konstantinov, V. I. Laur, and I. I. Samorodov.* **1991, No. 2, 480 [221].**

18. VACUUM TECHNIQUES

18.1. Construction of vacuum devices

Differential Evacuation System for the Emission of an Electron Beam into the Atmosphere. *V. A. Artemov, O. A. Malafeev, A. V. Reder, A. V. Rykhlov, and V. A. Safonov.* **1978, No. 2, 468 [190].**

Evacuated Chamber with Specimen Cooling via a Mechanical Switch. *V. V. Permyakov, N. E. Unesikhin, A. V. Vdovin, and I. G. Gavrish.* **1978, No. 2, 525 [243].**

Twin-Chamber Flexible Vacuum Connection. *G. P. Shemonaev and I. S. Sidorenko.* **1979, No. 3, 836 [206].**

Discharge Suppression on Admitting a Gas to a Device at a High Potential. *G. V. Karachevtsev, and A. Z. Marutkin.* **1980, No. 4, 977 [162].**

Injection of Gas into High-Pressure Devices. *L. G. Vintizenko, V. S. Tolkachev, and P. M. Shchanin.* **1982, No. 1, 260 [228].**

High-Temperature Vacuum Oven. *A. A. Dzhaimurzin and Zh. Zh. Imanbekov.* **1982, No. 3, 779 [232].**

Measurement of the Diffusion Length for a Vessel of Arbitrary Shape. *B. N. Sevast'yanov.* **1983, No. 2, 418 [162].**

A Multipositional Unit Containing Heated Strip Targets. *V. F. Rybalko, V. V. Ruzhitskii, and S. M. Khazan.* **1984, No. 1, 237 [215].**

An Apparatus for High-Temperature Electron Irradiation in Superhard Vacuum. *V. L. Arbuzov, A. E. Davletshin, S. E. Danilov, D. E. Domanskii, S. M. Klotsman, and A. L. Nikolaev.* **1985, No. 2, 439 [162].**

Nonmagnetic Implementation of Ultrahigh-Vacuum Systems. *O. B. Sokolov, N. N. Vyatkin, I. V. Gribov, V. L. Kuznetsov, M. P. Larin, and F. B. Maksyutov.* **1988, No. 2, 418 [137].**

Heatable High-Vacuum Chamber with Dismountable Seal and Specimen-Change Device. *I. M. Protas and Yu. F. Stepanov.* **1988, No. 4, 1050 [186].**

Combined Electron-Beam and Resistance Furnace for Operation in Ultrahigh Vacuum. *V. M. Orlov and V. V. Sukhorukov.* **1990, No. 1, 214 [200].**

18.1.1. Vacuum seals, windows, electrical leads

High-Voltage Vacuum Input Lead. *A. P. Solodovnikov.* **1977, No. 3, 882 [234].**

Fabrication of Indium Seals by Prepressing. *A. S. Shuvalov and L. A. Filatovskii.* **1979, No. 4, 1177 [270].**

Observation Window for High-Vacuum Chambers. *V. G. Kakuberi and A. T. Fin'kov.* **1980, No. 2, 518 [206].**

Laser Cleaning of the Inner Surface of Vacuum-Chamber Windows. *G. A. Askar'yan, B. M. Manzon, and I. M. Raevskii.* **1980, No. 4, 1053 [232].**

Vacuum-Sealed Electric Leads in a High-Pressure Chamber. *V. A. Sukhoparov and A. S. Telepnev.* **1981, No. 5, 1318 [204].**

Design of Foil Windows for Wide-Beam Electron Guns. *V. I. Fedorov, A. S. Myasnikov, and L. P. Shanturin.* **1981, No. 6, 1486 [144].**

A Conical Vacuum Seal. *Yu. F. Orekhov.* **1982, No. 3, 764 [219].**

A 500-kV Vacuum Lead for a High-Current Quasistationary Electron Accelerator with a Heated Cathode. *G. N. Antipov, S. V. Rybalov, and V. D. Sarbeev.* **1982, No. 6, 1438 [112].**

High-Voltage Vacuum Cable Entry. *Yu. V. Grigor'ev.* **1983, No. 1, 205 [168].**

Repair of Metal-Vacuum Sealing Components. *G. V. Karachevtsev, A. Z. Marutkin, and V. V. Savkin.* **1983, No. 1, 206 [169].**

High-Voltage Vacuum Current Lead-Ins for Electron Injectors. *V. F. Martynov, V. V. Zverev, M. A. Zav'yalov, V. N. Lisin, and S. I. Gusev.* **1983, No. 3, 641 [137].**

Ultrahigh-Vacuum Flange Joint with a Metal Gasket. *A. S. Vovkula and M. I. Dmitruk.* **1983, No. 3, 718 [205].**

Device for Changing Window Tilt in a Heated Vacuum System. *Yu. I. Asalkhanov and V. L. Mitapov.* **1983, No. 5, 1234 [207].**

Electrical Strength of a High-Voltage High-Current Vacuum Lead. *S. V. Rybalov.* **1984, No. 6, 1458 [144].**

Viewing Device for Electron-Beam Equipment. *R. Sh. Nasyrov.* **1984, No. 6, 1513 [191].**

Protection of Optical Windows of Vacuum Chambers from Evaporation Products. *V. I. Zavidei, A. V. Pustogarov, O. A. Povalyaev, and A. N. Konotopov.* **1985, No. 1, 241 [216].**

Window for Vacuum-to-Atmosphere Electron-Beam Extraction. *A. V. Dvurechenskii and B. P. Kashnikov.* **1985, No. 3, 531 [29].**

Compact Observation-Window Protective Device for Vacuum Systems. *M. I. Dmitruk.* **1985, No. 5, 1206 [195].**

High-Voltage Vacuum Lead-In. *L. G. Vintizenko.* **1985, No. 6, 1380 [130].**

High-Vacuum Flanged Joint with Metal Gaskets. *M. I. Dmitruk.* **1986, No. 4, 949 [176].**

High-Vacuum Seal for Low Temperatures. *Yu. A. Dubovitskii and A. P. Kryukov.* **1986, No. 4, 950 [177].**

Foils for Exit Windows of Industrial Electron Accelerators with Increased Current Density. *E. S. Machurin, G. I. Klenov, V. V. Vladimirov, S. A. Gus'kov, V. P. Kulichenko, N. A. Mel'nikova, L. M. Pachkalin, and P. V. Petrenko.* **1987, No. 2, 264 [22].**

Calculation of Mechanical Stresses in Electron Exit-Window Foils in Industrial Accelerators. *V. V. Vladimirov, A. L. Gritskevich, V. V. Davidovskii, N. P. Kulish, E. S. Machurin, N. A. Mel'nikova, and S. P. Repetskii.* **1988, No. 3, 544 [29].**

High-Voltage Vacuum Cable Lead-In for Hot-Cathode Electron Gun. *N. A. Klimov, K. V. Morozov, and G. N. Popkov.* **1989, No. 2, 482 [200].**

Teflon Vacuum Seal for Optical Windows of Quartz Reaction Vessels. *V. S. Arutyunov and V. D. Knyazev.* **1989, No. 2, 484 [201].**

Separating Membranes for Exit Windows of Electron Guns. *Yu. V. Grigor'ev and A. V. Stepanov.* **1990, No. 4, 895 [164].**

18.1.2. Valves, locks, flow regulators

Spring Valve Type VV-2500. *P. A. Mitirev and V. M. Chernyshov.* **1977, No. 1, 285 [247].**

High-Speed Vacuum Rotational Tap. *A. V. Belorusov and A. I. Karchevskii.* **1977, No. 2, 564 [213].**

High-Speed Vacuum Seals. *N. G. Geragimova.* **1978, No. 4, 1124 [256].**

Solid-State Oxygen Flow Regulator. *M. D. Geraimchuk, V. K. Grishin, and P. M. Talanchuk.* **1979, No. 2, 593 [276].**

Small Manually Controlled High-Vacuum Valves. *G. G. Baikova, V. A. Zhukova, A. N. Maleev, and A. I. Kholodov.* **1980, No. 1, 252 [243].**

Controllable Batching Valve. *I. I. Chemeris, V. F. Shkurdoda, and N. I. Korotkoruchko.* **1980, No. 5, 1307 [231].**

Ultrahigh-Vacuum Gate and Fast-Demounting Joint Sealed with Fusible Metal. *K. D. Danilov.* **1981, No. 2, 474 [176].**

High-Vacuum and Ultrahigh-Vacuum Planar Gates of Pendulum Type. *L. V. Arinin, K. D. Danilov, E. P. Kollerov, V. I. Kazakov, O. K. Kurbatov, B. G. L'vov, and M. V. Shnitko.* **1985, No. 2, 495 [214].**

An Automatic Leak. *B. Yu. Adamyak and N. A. Morozov.* **1985, No. 2, 498 [216].**

Du5 Vacuum Gate with Copper Seal. *V. I. Smirnov and P. V. Belov.* **1985, No. 4, 977 [218].**

Compact Heatable Gas-Flow Regulator. *Yu. I. Asalkhanov and D. D. Dondokov.* **1985, No. 4, 979 [220].**

System for Pulsed Gas Admission into Vacuum Apparatus. *O. K. Kurbatov, N. S. Novikov, and I. A. Ryabov.* **1987, No. 5, 1158 [130].**

High-Speed Vacuum Lock. *S. K. Shardyko.* **1988, No. 1, 238 [206].**

Simple Vacuum Flow Regulators. *V. N. Antsiferov, V. G. Gilev, and A. I. Rabinovich.* **1988, No. 1, 240 [208].**

High-Speed Shutter for Protection of Diagnostic Sensors. *L. E. Aranchuk, V. I. Kamyshan, V. K. Kutakh, R. M. Pivovar, and A. S. Snurnikov.* **1988, No. 5, 1330 [198].**

Automated Gas-Emission System based on Élektronika D3-28 Microcomputer. *A. A. Artemov, N. S. Baranchuk, M. M. Livitskii, V. P. Platonov, and V. Ya. Chernyak.* **1989, No. 1, 231 [203].**

High-Vacuum Regulating Valve. *B. A. Mamyrin.* **1990, No. 1, 221 [205].**

High-Vacuum Needle Valve. *É. É. Abel'masov and V. A. Kozlov.* **1991, No. 1, 214 [205].**

18.1.3. Transfer chambers and devices for displacement in vacuum

Vacuum Sluice-Gate Loading Devices. *V. E. Minaichev, V. V. Odinokov, and V. V. Savin.* **1977, No. 2, 567 [215].**

Double Vacuum Seal for Rotary Motion. *V. F. Roi.* **1978, No. 5, 1421 [240].**

Vacuum Pressure Seal with Mechanical Drive of Titanium Nickelide. *E. F. Yamshchkov.* **1978, No. 5, 1422 [241].**

Sealing for Transmission of Rotation to High-Temperature Vacuum Chambers. *M. D. Tyavlovskii and V. Yu. Serenkov.* **1981, No. 1, 277 [260].**

Vacuum Lock for Mass-Spectrometric Rapid Analysis of Surface Contaminants. *V. I. Faerman, I. L. Agafonov, A. E. Bogatyrev, and G. M. Tsyganov.* **1982, No. 2, 488 [188].**

Device for Rotating Samples in Vacuum. *A. A. Tarnai, P. A. Fennich, Yu. Yu. Firtsak, and O. V. Luksha.* **1982, No. 2, 511 [207].**

A High-Vacuum Seal for Reciprocating and Rotational Motions. *S. I. Kovalenko and S. A. Maiboroda.* **1982, No. 3, 762 [218].**

Manipulator for Moving Specimens in Ultrahigh-Vacuum Units. *H. Düsterhoft and B. Vichot.* **1983, No. 1, 146 [124].**

Belows Drive for Translational Motion. *V. A. Andriyanov and Yu. A. Glazunov.* **1983, No. 3, 727 [213].**

Device for Specimen Transfer to Manipulator of High-Vacuum Chamber. *B. M. Vermenichev and M. G. Maratkanova.* **1985, No. 6, 1466 [203].**

Vacuum Lock. *A. E. Khokhlov and A. P. Dostanko.* **1986, No. 4, 948 [174].**

Transfer Device with Hermetic Cassette for High-Vacuum Apparatus. *A. A. Isaev, S. A. Lapshin, E. A. Angilov, and M. F. Potokov.* **1987, No. 2, 472 [199].**

Device for Movement of Specimen Holder from Air Lock to Manipulator of Ultrahigh-Vacuum Chamber. *A. A. Isaev.* **1987, No. 6, 1487 [185].**

High-Vacuum Bushing with Liquid-Metal Seal. *Yu. V. Panfilov and I. A. Timoshin.* **1988, No. 2, 488 [191].**

Ultrahigh-Vacuum Manipulator with Six Degrees of Freedom. *V. T. Cherepin, A. A. Kosyachkov, V. N. Kolesnik, V. E. Is'yanov, and I. N. Yatsuk.* **1988, No. 4, 1052 [187].**

Device for Application of Mechanical Stresses under Ultrahigh Vacuum. *B. A. Nesterenko, A. I. Sorokovykh, and V. M. Tkachenko.* **1989, No. 4, 990 [228].**

18.1.4. Materials of vacuum technology

Preparation of 350NNI Ferrite for Its Use in Systems with a Superhigh Vacuum. *V. A. Vizir' and Yu. K. Pastukhov.* **1979, No. 4, 1173 [267].**

Joint between Artificial Sapphire and Metal. *I. Ya. Dekhtyar, L. F. Dubikovskii, V. I. Silant'ev, and N. V. Sukhoruchkin.* **1980, No. 6, 1523 [186].**

Sealing Material for Vacuum Windows in X-Ray Apparatus. *V. V. Prytkin and A. I. Prokhvatilov.* **1981, No. 6, 1550 [200].**

VT-25-200 Glue in the Fabrication of Electron-Gun Housings. *N. S. Zinchenko, I. M. Glutsyuk, N. E. Khoroshailo, V. I. Afanas'ev, and V. A. Sokolova.* **1983, No. 3, 715 [203].**

Vacuum Behavior of Polyamidoimide Film. *V. A. Gusinskaya, E. A. Kolenko, M. M. Koton, T. V. Batrakova, and K. A. Romashkova.* **1984, No. 1, 241 [218].**

Heat-Resisting Vacuum Sealing Material. *E. A. Kolenko.* **1984, No. 6, 1521 [198].**

Heat-Resistant Optical Adhesive with Low Vapor Pressure. *E. A. Kolenko, I. N. Petrov, and V. D. Mushenko.* **1987, No. 5, 1272 [225].**

18.2. Vacuum production

Titanium Sorption Pump for a Molecular Beam Detector. *V. M. Akimov, A. I. Volkov, and L. Yu. Rusin.* **1977, No. 1, 198 [174].**

Evacuation of Hydrogen by an Electric Arc Unit with an Output of 25 m^3/sec. *L. P. Sablev, E. G. Gol'diner, Yu. I. Dolotov, L. I. Get'man, and R. I. Stupak.* **1977, No. 1, 201 [176].**

On the Duration of Hydrogen Evacuation by Magnetic-Discharge Pumps. *N. A. Demidov, E. M. Ezhov, and A. A. Ul'yanov.* **1978, No. 3, 739 [174].**

Small Helium Condensation Pump to Pump off a Supersonic Gas Jet. *V. P. Strel'nikov and V. D. Telepnev.* **1978, No. 4, 1122 [254].**

High-Vacuum Plasma Pump. *A. M. Dorodnov, V. E. Minaichev, and S. I. Miroshkin.* **1980, No. 6, 1449 [126].**

A Helium-Cooled Forevacuum Pump. *M. P. Larin.* **1981, No. 2, 537 [234].**

Fast Zeolite Vacuum Pump. *I. N. Vishnevskii, V. A. Zheltonozhskii, V. P. Svyato, and V. V. Trishin.* **1982, No. 1, 265 [232].**

High-Vacuum Units with Cryogenic and Magnetic Discharge Pumps. *M. P. Larin.* **1982, No. 2, 420 [130].**

System for Studying Low-Temperature Adsorption of Air Components. *A. M. Arkharov, I. A. Kalinnikova, V. V. Serpinskii, N. A. Fedoseeva, and A. A. Zherdev.* **1982, No. 2, 424 [134].**

Ultrahigh Vacuum Evaporative Helium Cryopump. *B. Z. Kanter and A. V. Kozhukhov.* **1982, No. 5, 1275 [196].**

Method of Calculating a Differential Pumping System. *M. A. Zav'yalov, V. V. Zverev, and A. L. Shapiro.* **1983, No. 4, 921 [162].**

Ultrahigh-Vacuum Unit with Helium Cryogenic Pump. *M. P. Larin.* **1983, No. 6, 1393 [128].**

Oil-Free Ultrahigh-Vacuum System with a Shortened Pumping Cycle. *K. D. Danilov, G. I. Il'in, O. K. Kurbatov, E. M. Orleanskaya, I. V. Tvorogov, L. F. Tereshchenko, and M. V. Shnitko.* **1984, No. 3, 703 [164].**

Pulsed Differential Pumping System. *G. N. Antipov, F. A. Bagautdinov, and S. V. Rybalov.* **1984, No. 6, 1465 [150].**

Independent Power Supply for Electric-Discharge Magnetic Pump. *I. V. Bondaletova, I. N. Grigor'ev, and V. N. Zhuravlev.* **1985, No. 5, 1225 [213].**

Overload Protection for Power Supply of Magnetic-Discharge Pump. *M. A. Revenko.* **1986, No. 5, 1208 [201].**

Compact Getter Pump with Arc Titanium Evaporator. *E. D. Bender, G. F. Kuznetsov, and V. Ya. Savkin.* **1987, No. 2, 405 [144].**

Economical High-Vacuum Adsorption Pump. *B. Z. Kanter.* **1987, No. 2, 470 [197].**

Methane Evacuation by Compact Gadolinium Getter Ion Pump. *R. G. Varnakova, V. T. Grinchenko, and V. A. Koren'.* **1987, No. 2, 479 [203].**

Suppression of Electronic Noise of SON-A-1 Ultrahigh-Vacuum Pump. *M. A. Maksimov and E. A. Penchko.* **1987, No. 4, 985 [205].**

Evacuation by Zeolite Pump of Electron Gun with Foil Window. *Yu. V. Grigor'ev and A. V. Stepanov.* **1987, No. 6, 1427 [135].**

Electric-Arc Titanium Evaporator with Three-Phase Current. *E. D. Bender and G. I. Dimov.* **1988, No. 5, 1241 [129].**

Cryogetter Pump with Built-in Nitrogen Trap for Oil Vapor. *M. P. Larin.* **1988, No. 6, 1581 [181].**

Adsorption Fore Pump. *S. N. Popov and V. P. Solov'ev.* **1989, No. 1, 194 [171].**

Differential-Evacuation System with Aerodynamic Window. *B. A. Ivanov, V. V. Ivanov, G. M. Martyugov, O. P. Pecherskii, M. Yu. Polyanskii, R. I. Serikov, V. M. Khailov, and N. P. Shchegolikhin.* **1989, No. 4, 906 [153].**

Measurement of the Speed of High-Vacuum Pumps. *Yu. Zh. Kalinin and I. L. Maslennikov.* **1989, No. 6, 1366 [119].**

Liquid-Pool Helium Cryopump with Increased Capture Coefficients for Hydrogen and Helium. *M. P. Larin, G. N. Dgebuadze, D. L. Filatov, and D. V. Iremashvili.* **1989, No. 6, 1430 [174].**

Improved Vacuum Trap. *V. P. Boiko and L. S. Sozonov.* **1990, No. 1, 217 [203].**

Differential-Evacuation System with High-Speed Valve. *F. A. Bagautdinov and S. V. Rybalov.* **1990, No. 4, 958 [215].**

18.3. Vacuum gauges and leak detectors

High-Temperature Heating of Ion Source of a Mass-Spectrometric Leak Detector. *V. E. Stadnik.* **1977, No. 3, 878 [231].**

Electric-Discharge Pressure Gauge for Cesium Vapor. *V. A. Subbotin, A. M. Bryuzgin, Yu. G. Cherednichenko, E. Kh. Khachaturov, and E. S. Cherednichenko.* **1978, No. 1, 158 [152].**

Magnetic-Discharge Manometer with Two Coaxial Anodes. *V. N. Pakulin.* **1978, No. 1, 160 [154].**

Radioisotope Pressure Transducer with Linear Scale in the Range of 100-1000 torr. *V. A. Chernyshev, S. T. Pantyukhov, and A. P. Kharin.* **1978, No. 2, 460 [183].**

Method for Increasing the Accuracy of Pressure Measurement Using an MT-6 Vacuum Gauge in the Range 10^2-10^4 Pa. *E. M. Mauskop and A. N. Zavilopulo.* **1978, No. 3, 794 [222].**

Sparking Leak Detector. *Yu. A. Silin'sh.* **1978, No. 5, 1424 [242].**

Differential Membrane Manometer for the Measurement of Low Pressures. *G. S. Abilov, S. P. Polunin, D. N. Astrov, and L. V. Belyanskii.* **1978, No. 5, 1425 [243].**

Magnetic-Discharge Open-Type Manometer with Inhomogeneous Magnetic Field. *V. N. Pakulin.* **1978, No. 6, 1582 [113].**

Optimal Rate of Flow of a Gas Sample through a Halide Leak-Detector Pickup. *V. F. Rogal'.* **1979, No. 1, 248 [232].**

Manometric Tube with Valve. *D. A. Pelykh, D. S. Ratmanskii, and A. F. Tsaritsenko.* **1979, No. 1, 255 [239].**

Simple Gas Analyzer Based on a-Thermocouple Vacuum Gauge. *K. Sh. Agababyan, A. A. Aroyan, and R. T. Mina.* **1979, No. 2, 532 [222].**

Magnetic Discharge Cells with Nonuniform Periodic Magnetic Field. *V. N. Pakulin.* **1979, No. 4, 1098 [202].**

Calibrated Hydrogen–Helium Leak. *Yu. A. Goryainov, V. T. Kuz'mina, L. E. Levina, L. D. Murav'eva, and G. A. Chigirinova.* **1980, No. 1, 254 [244].**

Linear Pressure to Pulse Frequency Transducer. *S. P. Essyak and S. G. Osipova.* **1980, No. 1, 256 [246].**

Miniature Thermoelectric Pressure Transducer. *E. Ya. Badinter, B. K. Zalevskii, and I. G. Starush.* **1980, No. 1, 258 [248].**

Experimental Study of Measurement Errors of Rarefied-Gas Pressure Transducers. *P. N. Aver'yanov, I. D. Voronov, V. M. Zaikin, V. V. Pashkov, N. A. Ramzaeva, and E. V. Shevchenko.* **1980, No. 2, 459 [155].**

Radioisotopic Manometer with a Channel Multiplier. *V. N. Barkovskii, A. A. Vydrik, and V. G. Mikutskii.* **1980, No. 3, 723 [168].**

Radioisotopic Ionization Pressure Gauge for the 650-1.7·10^5 Pa Range. *V. N. Barkovskii, A. A. Vydrik, and V. G. Mikutskii.* **1980, No. 5, 1242 [173].**

Planar Magnetic Discharge Manometer. *V. N. Pakulin.* **1981, No. 1, 184 [175].**

Time Characteristics of Magnetic Discharge Manometric Transducers. *A. M. Grigor'ev, A. I. Fursov, and I. F. Khanina.* **1981, No. 1, 186 [177].**

Two-Channel Vacuum Meter with Digital Display. *S. I. Edneral, E. A. Startsev, and B. I. Tsirkel'.* **1981, No. 1, 279 [262].**

Alpha-Radiation Pressure Detector. *P. S. Kamenov, D. N. Vasilev, E. I. Vapirev, and L. S. Chak'rova.* **1981, No. 4, 1075 [234].**

A Transducer for Low Oxygen Partial Pressures. *S. P. Golubkov and B. M. Talanchuk.* **1982, No. 5, 1294 [212].**

Spherical Magnetic-Discharge Cell. *V. N. Pakulin, Yu. M. Krot, and E. G. Guzhva.* **1983, No. 4, 923 [164].**

Vacuum Measurement by Reflection of Slow Electrons from a Silicon Surface. *Yu. I. Asalkhanov and I. T. Pron'kinov.* **1984, No. 1, 177 [162].**

Thermocouple Vacuum Gauge. *K. V. Kiryunikov.* **1985, No. 5, 1203 [192].**

Simple Electrometer for Helium Leak Detector. *S. G. Semenchinskii and A. K. Yanysh.* **1986, No. 6, 1450 [189].**

Mass-Spectrometer Differential Gas Micromanometer. *M. E. Slutskii and M. A. Pushkina.* **1987, No. 2, 421 [156].**

Tritium Pressure Gauge. *V. A. Voitenko, V. M. Gul'ko, N. F. Kolomiets, A. M. Sviridov, A. E. Shikanov, and K. I. Yakovlev.* **1987, No. 2, 477 [202].**

Background Current of Radioisotope Manometer. *A. A. Vydrik.* **1987, No. 5, 1156 [128].**

Automatic Digital Vacuum Gauge with Cold-Cathode Ionization Transducer. *V. V. Bochevskii, I. A. Donskoi, I. L. Kogan, Yu. S. Mikheev, T. I. Trofimov, T. L. Sharapova, Yu. B. Yankelevich, and B. Ya. Yankilevich.* **1988, No. 4, 972 [126].**

Thermoelectric Resistance Vacuum Gauge with Enhanced Accuracy. *V. N. Kobko and R. A. Ryabov.* **1989, No. 6, 1403 [151].**

19. LABORATORY TECHNIQUES

19.1. Techniques for working with gases

Device for Sealing High-Pressure Gas-Discharge Devices. *R. M. Khatapova and Yu. B. Glushanok.* **1978, No. 2, 531 [249].**

Porous Vacuum Gas Accumulators. *V. M. Lebedev.* **1978, No. 3, 793 [221].**

Atomic-Oxygen Analyzer with Semiconductor Sensors for Researching the Upper Atmosphere of the Earth. *A. I. Livshits, E. E. Gutman, I. A. Myasnikov, V. M. Fursa, V. I. Padeev, Yu. A. Romanovskii, and E. I. Kriman.* **1981, No. 3, 754 [177].**

Apparatus for Monopulse Ruby Laser Synchronization in Shock-Wave Investigations in Tubes. *V. M. Medvedev and V. D. Shevtsov.* **1982, No. 3, 706 [172].**

System for Study of Gas Dielectric Properties. *A. A. Potapov and E. P. Metsner.* **1982, No. 5, 1270 [192].**

A Valve for Corrosive Gases. *S. V. Petrov.* **1985, No. 2, 501 [219].**

Gas-Composition Tester. *V. V. Karpukhin, A. V. Kulikov, and S. V. Trusov.* **1985, No. 6, 1473 [208].**

Apparatus for Study of the Effect of Surface Acoustic Waves on Gas Flow. *A. A. Elfimov, B. T. Porodnov, V. D. Seleznev, and A. G. Flyagin.* **1987, No. 2, 447 [177].**

Source of High-Enthalpy Jets of Liquid Vapors, Gases, and Their Mixtures. *O. A. Nerushev, G. A. Khramov, and V. N. Yarygin.* **1987, No. 4, 980 [202].**

Automatic Laser Interference Refractometer for Studying the Dispersion of Gases. *Yu. V. Mishchenko.* **1987, No. 3, 689 [171].**

Instrument Complex for Measurement of Turbulent Temperature and Velocity Fields of Nonisothermal Gas Flows. *P. I. Savostenko and S. P. Serbin.* **1988, No. 4, 1041 [178].**

General-Purpose Gas Panel for System of Proportional Chambers. *S. V. Erin, A. A. Morozov, V. K. Myalitsin, and B. V. Chuiko.* **1988, No. 6, 1412 [43].**

Semiconductor Sensor-Mirror for Dew-Point Measurement. *Sh. Z. Dzhamagidze, K. A. Kobakhidze, A. M. Todua, and V. A. Chatov.* **1989, No. 2, 503 [218].**

Electrostatic Classifier of Monodisperse Aerosols with Improved Selective Properties. *E. P. Emets, V. A. Kashcheev, and P. P. Polyektov.* **1990, No. 4, 979 [232].**

Simple Supersonic Wind Tunnel. *D. F. Bykov, S. I. Gritsinin, and I. M. Raevskii.* **1991, No. 2, 445 [193].**

Optimization of Microwave Hydrogen Dissociator. *V. P. Ershov, I. V. Zhigulin, A. V. Levkovich, V. G. Luppov, M. Mertig, and Yu. K. Pilipenko.* **1991, No. 2, 465 [209].**

Two-Stage Aerodynamic Window. *V. A. Aksenov, I. V. Zakharov, V. M. Nikitin, S. G. Smetanin, V. M. Khailov, and V. V. Shelomovskii.* **1991, No. 4, 887 [138].**

Compact Automated Gas Analyzer with Continuous CO_2 Laser. *A. M. Brodnikovskii and M. B. Bogachev.* **1991, No. 1, 199 [192].**

Resonance–Fluorescence Hygrometer for Humidity Measurement in the Stratosphere. *M. V. Kretova, M. G. Khaplanov, and V. A. Yushkov.* **1991, No. 3, 689 [195].**

Interference Method for Determination of Masses of Gaseous Optical Heterogeneities. *L. S. Abrukova and V. S. Abrukov.* **1991, No. 4, 984 [221].**

19.1.1. Purification of gases

Purification and Purity Control of Working Media for Liquid Ionization Detectors (Review). *A. S. Barabash.* **1988, No. 3, 517 [7].**

Vacuum Extraction System with Low Background. *G. S. Anufriev, V. N. Gartmanov, B. A. Mamyrin, and V. P. Pavlov.* **1977, No. 1, 286 [248].**

Multiposition Metallic Reactor for Liberation of Noble Gases. *B. A. Mamyrin and L. V. Khabarin.* **1977, No. 2, 586 [232].**

Effective Thermal Source of Fluorine Atoms. *V. S. Arutyunov and A. M. Chaikin.* **1978, No. 1, 240 [224].**

System for thorough Purification of Argon and Instrument for the Measurement of the Total Concentration of Electronegative Impurities in Noble Gases and Saturated Hydrocarbons. *A. S. Barabash, O. V. Kazachenko, A. A. Golubev, A. N. Zelenskii, and B. M. Ovchinnikov.* **1978, No. 6, 1666 [189].**

Lithium Trap for Argon Purification. *E. A Kushnirenko, V. S. Panin, and V. A. Shokhin.* **1979, No. 1, 250 [234].**

Container for Volatile Inorganic Hydrides of Specially High Purity. *A. S. Yushin and Yu. A. Nechuneev.* **1979, No. 1, 251 [235].**

Inert-Gas Purification System for an 8-m Streamer Chamber. *V. A. Davidenko, A. N. Lebedev, V. P. Miroshnichenko, A. M. Rogozhin, and S. V. Somov.* **1983, No. 5, 1228 [202].**

A Hydrogen Leak for High-Power Gas-Discharge Devices. *G. V. Grekova, A. B. Kobelev, and G. G. Loktin.* **1984, No. 1, 242 [219].**

An Independent Hydrogen Source. *G. F. Kobzenko, N. S. Kobzenko, A. I. Senkevich, M. V. Chubenko, and A. A. Shkola.* **1985, No. 2, 499 [217].**

Twin-Flask Apparatus with Observation Ports for Study of Dynamics of Diffusion Processes in Gases at Elevated Pressures. *Yu. I. Zhavrin, S. B. Tarasov, A. Z. Aitkozhaev, S. M. Belov, and I. V. Bolotov.* **1985, No. 5, 1214 [203].**

Helium Purification by Forced Circulation Through Cooled Sorbers in Nuclear-Pumped Lasers. *A. P. Kopai-Gora, A. I. Mis'kevich, and B. S. Salamakha.* **1986, No. 5, 1174 [171].**

Use of Ni/SiO_2 as Adsorbent for Long-Term Diffusion Purification of Gaseous Xenon and Xenon-Methane Mixtures. *Yu. V. Zanevskii, V. D. Peshekhonov, and L. P. Smykov.* **1989, No. 4, 823 [81].**

Membrane Filter for Diffusion Separation and Production of Ultrahigh-Purity Hydrogen Isotopes. *V. M. Bystritskii, V. G. Gur'yanov, I. A. Ionesyan, V. V. Latyshev, M. P. Malek, V. L. Nikolaev, L. A. Rivkis, and V. A. Stolupin.* **1991, No. 1, 227 [216].**

Source of Spectrally Pure Oxygen. *B. M. Zykov and A. M. Sabel'nikov.* **1991, No. 1, 231 [219].**

Palladium–Silver Hydrogen Separator with Quartz-Lamp Activator. *N. S. Belov and D. I. Arsen'ev.* **1991, No. 2, 463 [207].**

Hydrogen Vaporizer–Converter. *A. A. Levchenko and L. P. Mezhov-Deglin.* **1991, No. 2, 478 [220].**

Oxygen-Flow Regulator Based on Solid Dielectric. *V. I. Radchenko and V. N. Kudryavtsev.* **1991, No. 4, 968 [208].**

19.1.2. Measurement of pressure and flow

Miniaturized Pressure-to-Frequency Converter with Pulse Output. *V. I. Kuznetsov, V. V. Meer, F. Z. Rozenfel'd, and A. V. Tarakanov.* **1977, No. 2, 582 [228].**

Vacuum Piezoceramic Transducer for Measuring Pressure in the 760–10^{-5} torr Range. *V. A. Beseda, V. G. Cherkasov, V. V. Gulyaev, and V. N. Savoiskii.* **1977, No. 4, 1193 [249].**

Electronic Flowmeter for Determining Low Gas Pressures. *B. V. Zubkov, A. V. Sermyagin, S. V. Umanskii, and V. N. Khromov.* **1978, No. 2, 462 [185].**

Piezoelectric Converter for the Measurement of Large Variable Pressures. *N. N. Baulin, N. N. Pilyugin, G. N. Suntsov, and S. Yu. Chernyavskii.* **1978, No. 5, 1429 [247].**

Mercury Manometer with Fixed Level in One of the Arms. *V. S. Akatov and V. F. Kukarin.* **1978, No. 5, 1427 [246].**

Piezoelectric Pickup for the Measurement of Pulsed Pressures. *L. G. Gvozdeva and Yu. V. Zhilin.* **1978, No. 5, 1431 [249].**

Precision Automatic Digital Barometer. *V. G. Sborshchikov and A. E. Chudakov.* **1979, No. 1, 256 [239].**

A Highly Sensitive Barometer. *V. I. Osika and S. Yu. Pashin.* **1979, No. 5, 1430 [220].**

Shock Tube for Calibration of Pressure Detectors. *G. A. Makarevich and G. S. Lisenkova.* **1980, No. 3, 811 [245].**

Piezoelectric Pressure Gauge. *V. A. Artemov and P. I. Nevzorov.* **1981, No. 2, 529 [226].**

Measurement of the Local Velocities of Gas Flows at Low Pressures. *Yu. D. Akimov, L. A. Kuzinits, L. N. Rozanov, and I. I. Rozentsveig.* **1981, No. 2, 545 [241].**

Thermoanemometer for Measuring Small Gas Flow Velocities. *A. D. Mamrosov, and S. V. Ivashchenko.* **1981, No. 4, 1084 [242].**

Sensitive Frequency Detector for Pressures to 600 Pa. *A. G. Smagin.* **1981, No. 6, 1524 [178].**

Fluidic Anemometer. *E. F. Shkatov.* **1982, No. 5, 1285 [204].**

A Flexible Piezoelectric Pressure Transducer. *S. V. Belyaev, S. D. Pel'ts, E. D. Pol'skikh, E. A. Myzgin, and B. A. Chayanov.* **1982, No. 5, 1308 [223].**

Polyvinylidene Fluoride Piezoelectric Transducer. *L. F. Ben'kova, S. D. Pel'ts, M. P. Éidel'nant, L. I. Arutyunova, and T. V. Bocharov.* **1983, No. 4, 986 [220].**

Pressure Meter for Corrosive Media. *V. L. Ermolenko, N. F. Levchuk, and V. A. Nikolaev.* **1984, No. 2, 493 [218].**

Constant-Temperature Hot-Wire Anemometer. *Yu. M. Prokopenkov.* **1984, No. 2, 508 [230].**

Phase-Inverting Hot-Wire Anemometer Sensitive to the Direction of Flow. *A. A. Bormusov, R. N. Gabitov, and G. A. Glebov.* **1984, No. 3, 770 [221].**

Device for Measurement of the Saturated Vapor Pressure of Materials. *M. M. Gubin and G. S. Shteiner.* **1984, No. 5, 1279 [212].**

Broadband Piezoelectric Pressure Sensor. *V. A. Godonyuk, B. V. Zhuravlev, and I. P. Shed'ko.* **1984, No. 5, 1281 [214].**

An Inductive Pressure Transducer. *B. Sh. Sheftel'.* **1985, No. 2, 502 [220].**

Tensometric Differential Manometer. *I. N. Polandov, A. I. Savinkov, N. P. Kachalov, and L. N. Syrkin.* **1985, No. 4, 980 [221].**

Two-Component Constant-Temperature Hot-Wire Hydrometer with Digital Signal Recording. *Y. P. Petrov and V. I. Sugrei.* **1985, No. 6, 1452 [192].**

Precision Differential Capacitance Manometer. *S. P. Polunin, D. N. Astrov, L. B. Belyanskii, Yu. A. Dedikov, and A. A. Zakharov.* **1986, No. 2, 501 [218].**

Mercury Interference Manometer. *A. A. Zakharov, D. N. Astrov, L. B. Belyanskii, Yu. A. Dedikov, and S. P. Polunin.* **1986, No. 3, 719 [196].**

Increasing the Accuracy of Pressure Measurement with Thermoelectric Gauges. *V. N. Lobko and R. A. Ryabov.* **1986, No. 6, 1434 [175].**

Linearizer for Hot-Wire Anemometer. *V. I. Ivanov, V. S. Mizin, B. L. Reznikov, and A. K. Semenov.* **1986, No. 6, 1455 [194].**

High-Sensitivity High-Speed Tunnel-Diode Pressure Gauge. *A. P. Vyatkin, N. P. Krivorotov, and S. S. Shchegol.* **1988, No. 1, 216 [186].**

Automated Acoustic Wind-Speed, Wind-Direction, and Air-Temperature Meter. *M. V. Anisimov, E. A. Monastyrnyi, G. Ya. Patrushev, and A. P. Rostov.* **1988, No. 4, 1065 [196].**

Autodyne Gas-Velocity Sensor. *A. V. Popov, S. M. Smol'skii, and V. V. Shtykov.* **1988, No. 4, 1069 [200].**

Differential Capacitive Pressure Gauge. *S. N. Afanas'ev, V. G. Sevast'yanov, A. Yu. Stepanov, and V. V. Suprunyuk.* **1990, No. 1, 218 [204].**

Two-Component Laser Doppler Anemometers. *M. M. Ismailov, G. V. Mun, K. R. Samigulin, and E. G. Nikolaeva.* **1991, No. 5, 1145 [148].**

19.1.3. High-speed valves

Electromagnetic Gate Valve for Pulsed Gas Inlet to a Vacuum System. *A. P. Strokach and K. N. Klochkov.* **1980, No. 1, 260 [251].**

High-Speed Pulsed Valve Based on a Bimorph Piezoelectric Element. *V. N. Garnov, E. A. Maslennikov, V. N. Polkanov, and V. A. Smirnov.* **1980, No. 4, 981 [165].**

Pulsed Gas-Flow Regulator for a Streamer Chamber. *N. S. Glagoleva, E. A. Dement'ev, A. T. Matyushin, and V. T. Matyushin.* **1981, No. 3, 809 [227].**

Control System for Electromagnetic Valve Actuator. *A. A. Khomenko, V. V. Sokolov, and G. N. Romanova.* **1982, No. 4, 1038 [233].**

Fast Electrodynamic Ring-Shaped Gas Injector. *N. M. Umrikhin and F. R. Khamidullin.* **1983, No. 2, 415 [160].**

Starting Valve for an Apparatus for Obtaining High-Pressure Fluid and Gas Jets. *G. E. Dyadchenko, N. S. Zubarev, and M. A. Plotnikov.* **1983, No. 4, 956 [193].**

A Pulsed Valve with Preliminary Gas Ionization. *A. V. Voronin, S. E. Goncharov, A. D. Danilov, R. Sh. Kil'keev, and V. M. Kuznetsov.* **1984, No. 1, 171 [156].**

Pulse-Operated Gas-Dynamic Gate. *A. A. Kuznetsov, S. S. Sulakshin, and V. S. Skakun.* **1986, No. 4, 915 [147].**

Electrodynamic Valve for Pulsed Gas Admission. *V. A. Kiselev, A. F. Linnik, and Yu. M. Novikov.* **1986, No. 4, 951 [178].**

High-Speed Valve with Slotted Nozzle for Production of Long Pulsed Supersonic Jet. *G. S. Baronov, D. K. Bronnikov, A. E. Varfolomeev, A. A. Makho, and A. V. Usenkov.* **1987, No. 1, 218 [199].**

Electromagnetic Valve with Heater for Production of Pulsed Supersonic Gas Jet. *G. S. Baronov, D. K. Bronnikov, and A. E. Varfolomeev.* **1988, No. 2, 513 [209].**

High-Speed Diaphragm Gas Valve. *R. B. Baksht and A. V. Fedyunin.* **1988, No. 6, 1593 [191].**

High-Speed Pneumatic Valve. *A. B. Belousov, V. A. Grushin, V. P. Kirsanov, and V. G. Loktev.* **1988, No. 6, 1596 [193].**

Electrodynamic Valve for Pulsed Gas Admission. *V. N. Ishchenko, S. A. Kochubei, and K. N. Naumochkin.* **1990, No. 4, 977 [230].**

19.2. Techniques for working with liquids

High-Pressure String Viscometer with Wide Working Temperature Range. *A. I. Karnus, V. P. Slyusar', N. S. Rudenko, and É. I. Vinokurov.* **1977, No. 1, 307 [265].**

Viscosimeter for Measuring Three Coefficients of Viscosity of Liquid Crystals. *V. A. Tsvetkov and G. A. Beresnev.* **1977, No. 5, 1497 [223].**

Device for Measuring Viscosity of Liquids and Shape Factor of Solid Particles. *S. M. Aizin, Yu. A. Gridnev, A. S. Zherebovich, T. A. Kalinina, I. A. Kleinman, and A. G. Segalla.* **1978, No. 1, 248 [231].**

Laboratory Mixer. *S. V. Rykov.* **1978, No. 3, 815 [241].**

Cascade Transistor-Based Transducer for Converting the Level of a Liquid into Frequency. *V. P. D'yakonov, A. A. Sterlyagov, V. M. Stel'makh, and A. S. Ul'yanov.* **1979, No. 3, 868 [232].**

Automatic Viscosimeter for Investigation of Melts. *V. P. Zhereb, Yu. F. Kargin, and V. M. Skorikov.* **1979, No. 6, 1640 [145].**

Fiber-Optic Liquid Level Detector. *V. N. Volikhov, M. E. Zhabotinskii, S. K. Morshnev, A. S. Ryabov, A. V. Frantsesson, and É. S. Yankovskii.* **1981, No. 6, 1546 [197].**

Apparatus to Measure the Particle Concentration and Size in Liquids. *S. V. Kuz'min, S. A. Saunin, Yu. A. Sprizhitskii, S. M. Bezruchko, and V. S. Bannikov.* **1983, No. 1, 202 [165].**

Degasifier for a Circulating Liquid Flow. *V. I. Venglyuk and L. G. Popova.* **1983, No. 1, 211 [172].**

Generalization of a Method of Measuring Ion Mobility from the Motion of the Boundaries of Electrolytes and Solutions. *V. B. Fiks.* **1983, No. 2, 469 [208].**

Micropiezometer for Use with Liquids. *A. N. Zisman, S. N. Nefedov, and I. N. Makarenko.* **1983, No. 4, 983 [218].**

Device for Supplying a Liquid Uniformly. *B. A. Savel'ev and O. P. Pozdnyakova.* **1983, No. 5, 1242 [214].**

Nutation Flowmeter for a Proton-Bearing Liquid. *A. E. Pryakhin, S. S. Shushkevich, and I. O. Orobei.* **1983, No. 6, 1456 [186].**

Signal Converter for Nuclear-Magnetic Flow Meter. *A. E. Pryakhin and A. E. Faibyshev.* **1985, No. 3, 723 [200].**

Rotary Viscometer with Magnetic Suspension. *N. N. Abdurakhmanov, E. V. Mezhburd, and A. A. Senin.* **1989, No. 4, 966 [206].**

Wetting-Angle Measurement by Reflected-Light Method. *A. N. Magunov and E. V. Mudrov.* **1990, No. 5, 1224 [227].**

"Moidodyr" Apparatus for Electric-Spark Purification of Liquid Krypton Used in Ionization Detectors. *S. N. Anisimov, A. S. Barabash, A. I. Bolozdynya, V. N. Stekhanov, and D. L. Churakov.* **1991, No. 2, 313 [79].**

Liquid-Level Indicator with Bihelical–Conical Light-Guide Structure. *M. S. Korenev.* **1991, No. 2, 476 [218].**

Birefringence Method for Recording of Wetting-Angle Distribution. *A. N. Magunov.* **1991, No. 3, 727 [228].**

Cell for Study of Conductance of Liquids in a Shear Field. *N. V. Usol'tseva, V. V. Bykova, V. A. Sandler, and P. A. Burylin.* **1991, No. 4, 962 [204].**

19.3. Single crystals

Growth of Single Crystals of Substances Having High-Temperature Phase Transformation. *M. V. Gartman and A. N. Izotov.* **1977, No. 1, 290 [251].**

Unit for Electron-Beam Cutting of Semiconductor Plates. *A. N. Komov, A. I. Kolpakov, and B. D. Rafaevich.* **1977, No. 1, 293 [253].**

Crystallizer for Growing Single Crystals from Solutions with Precision Control of Supersaturation. *E. D. Kurtsman and L. Ya. Suvorov.* **1977, No. 3, 897 [245].**

Preparation of NaCl, KBr, and CsI Crystals 5-30 μ Thick for Channelography. *A. A. Abdurazakov, M. Kh. Saied, and V. V. Skvortsov.* **1977, No. 3, 899 [247].**

Obtaining Defect-Free Surfaces on Single Crystals by Vibratory Polishing. *A. N. Grigor'ev, L. I. Nikolaichuk, and L. I. Pivovar.* **1977, No. 3, 902 [249].**

Apparatus for Growing Low-Temperature Single Crystals. *S. A. Kozlov.* **1977, No. 5, 1500 [226].**

Apparatus for Transfer and Deformation of Cryogenic Crystals. *A. E. Lykhmus.* **1977, No. 5, 1502 [227].**

Device for Continuous Elongation of Profiled Crystalline Ingots from a Melt. *Sh. M. Gogichaishvili, O. Sh. Gogishvili, and S. P. Lalykin.* **1978, No. 3, 798 [226].**

Growth of Multicrystals of High-Melting Metals. *A. A. Yastrebkov and V. A. Repii.* **1978, No. 3, 800 [228].**

Growth of Bismuth–Antimony Single Crystals from a Cooled Seed. *V. I. Bochegov, K. G. Ivanov, and N. A. Rodionov.* **1980, No. 2, 533 [218].**

Analog System for Monitoring Crystal Growth by the Czochralski Method. *S. A. Astashkin, V. N. Dudorov, V. V. Osiko, M. I. Timoshechkin, and V. D. Chervenkov.* **1981, No. 6, 1553 [202].**

Deformationless Cutting of Tungsten Single Crystals. *A. Yu. Dudkin, I. V. Matveev, and S. M. Cheremisin.* **1982, No. 6, 1530 [193].**

Method of Determining the Diffusion Coefficients in Solution-Melts. *V. A. Gorokhov, T. T. Dedegkasev, V. A. Moshnikov, A. S. Petrov, and D. A. Yas'kov.* **1983, No. 4, 959 [195].**

Device for Removing Thin Layers from Crystals. *R. N. Fesh, N. I. Zbykovskaya, A. V. Dzyadek, and O. É. Panchuk.* **1984, No. 6, 1507 [187].**

Apparatus for Chemical Cutting of Oriented Crystals. *I. K. Zasimchuk, D. E. Ovsienko, A. V. Fomin, V. Z. Balan, V. N. Kozitsyn, and N. E. Sinitskii.* **1985, No. 6, 1476 [210].**

Modernization of SShVL Vacuum Furnace for High-Temperature Growth of Single Crystals. *G. G. Kacharava, T. D. Medoidze, G. A. Tsintsadze, and P. I. Chelidze.* **1988, No. 1, 254 [219].**

Production of Wells in NaI(Tl) Crystals. *G. I. Antonenko, L. P. Voinov, and L. I. Pershina.* **1988, No. 2, 487 [190].**

Apparatus for Synthesis and Crystallization of Alloys under the Influence of Vibration. *V. F. Zhukov, L. M. Metelitsa, E. P. Sabo, and G. G. Tsveiba.* **1988, No. 4, 1059 [192].**

Simple Programmer for Control of Single-Crystal Heat Treatment. *M. A. Karavanova, A. V. Radkevich, and P. E. Stadnik.* **1989, No. 3, 719 [200].**

Photographic Recording of Ionic-Crystal Damage by High-Current Electron Beam. *G. I. Gering and V. S. Kovivchak.* **1989, No. 3, 741 [220].**

Device for Dynamic Chemical Etching of $BaTiO_3$ Ferroelectric Single Crystals. *K. G. Abdulvakhidov, V. G. Gavrilyachenko, and A. F. Semenchev.* **1989, No. 5, 1245 [239].**

Two-Circuit System for Control of Horizontal Directional Crystallization of Leucosapphire. *S. V. Bodyachevskii, V. N. Klimovitskii, Yu. K. Lingart, Ya. A. Polishchuk, N. A. Tikhonova, and E. G. Shalfeev.* **1990, No. 6, 1434 [184].**

Method for Study of Melting and Crystallization Processes in Cold Container with Direct Radio-Frequency Heating. *V. I. Aleksandrov, V. P. Voinitskii, E. E. Lomonova, V. V. Osiko, and N. P. Khaneev.* **1991, No. 3, 731 [231].**

Apparatus for Optical Studies of Heterophase States in Crystals. *A. T. Anistratov, S. B. Kruglyashov, L. A. Kovaleva, and A. B. Zybin.* **1991, No. 5, 1148 [150].**

19.4. Microwires, tips, capillaries, openings, powders

Ultrasonic Laboratory Disperser. *B. A. Agranat, I. P. Golyamina, M. B. Samoilenko, and N. N. Khavskii.* **1977, No. 1, 281 [244].**

Control of Resistance of Metal–Oxide–Metal Point Contact with a Mechanical Corrector. *A. A. Rivlin.* **1979, No. 4, 1169 [264].**

Device for Uniformly Covering Thin-Wire Insulation. *P. N. Gol'fenshtein, M. A. Drozdov, A. G. Kushnir, and A. S. Ryabchikov.* **1981, No. 6, 1557 [205].**

Reconstruction of the Shape of Small Particles. *S. A. Nepiiko and A. P. Ostranitsa.* **1982, No. 6, 1507 [172].**

Electrochemical Preparation of Fine Needles in a Flow of Electrolyte. *V. I. Afanas'ev, V. M. Tubaev, T. I. Karpenko, and T. I. Ivanchenko.* **1983, No. 1, 242 [195].**

Preparation of Silts and Apertures for Pinhole Cameras Used in X-Ray Diagnostics. *V. P. Nikitin and V. A. Podgornov.* **1983, No. 4, 993 [226].**

Vacuum Ultraviolet Modification of Porous Polymer Membranes with Open Pores. *A. V. Mitrofanov.* **1984, No. 3, 748 [203].**

Refractory Filters with Calibrated Holes. *A. D. Styrkas.* **1984, No. 6, 1522 [199].**

Removal of Vitreous Insulation from Microconductors. *E. A. Kolenko.* **1985, No. 6, 1469 [205].**

Plasma Generator of Ultrasmall Particles. *A. A. Emel'yanov and M. N. Dulin.* **1986, No. 5, 1229 [219].**

Miniature Laboratory Mill for Mechanochemical Studies. *P. Yu. Butyagin, A. R. Kuznetsov, and I. K. Pavlychev.* **1986, No. 6, 1464 [201].**

Cell for Measurement of Electrical Conductivity of Acicular Microcrystals. *V. N. Markov and V. G. Solov'ev.* **1988, No. 5, 1340 [205].**

19.5. Technological processes and materials

High-Temperature Centrifuge. *V. M. Stebakov, E. N. Yurkov, E. V. Vasil'ev, and L. S. Tyan.* **1977, No. 2, 585 [231].**

Distiller of Alkali Metals. *V. P. Gorban, V. Ya. Katchan, and A. V. Kozyukov.* **1977, No. 3, 884 [236].**

Determination of Effective Annealing Time by Using an Analog Computer. *A. V. Baldin, A. E. Buzynov, V. S. Luparev, A. F. Matvienko, and A. M. Ryabinkin.* **1977, No. 4, 1197 [253].**

Hardening of Alloys with a Rapid Rate of Cooling. *V. N. Sumarokov and E. M. Savitskii.* **1979, No. 3, 861 [228].**

Setup for Washing and Drying Multiwire Chambers. *G. M. Kolachev, S. V. Krotov, G. D. Minakov, I. I. Nikachalo, and G. S. Filimonov.* **1979, No. 5, 1427 [217].**

Ultrasonic Cleaning of Wire-Chamber Electrodes. *V. A. Krasnov, A. B. Kurepin, K. O. Oganesyan, S. Yu. Porokhovoi, V. I. Razin, and Sh. G. Shamsutdinov.* **1980, No. 1, 63 [67].**

Vibrating Polishing Device. *S. G. Vinogradov, V. A. Danilov, and V. M. Suchek.* **1983, No. 1, 244 [196].**

Preparation of Surface of Ferrite Substrates. *E. I. Pelikhova and S. V. Liventsev.* **1983, No. 2, 484 [221].**

Emulsion for Cleaning Inorganic Substrates. *E. I. Pelikhova and S. V. Liventsev.* **1983, No. 2, 485 [222].**

Automatic Cassette Diffusometer. *P. N. Lavrenko and V. V. Raglis.* **1986, No. 2, 496 [213].**

Crucible Rotator with Acceleration. *V. R. Genrikhson and V. F. Kleptsyn.* **1986, No. 2, 507 [224].**

Apparatus for Structural Study of Low-Temperature Deposits of Organic Compounds. *G. A. Domrachev, B. S. Kaverin, V. L. Karnatsevich, and Yu. A. Shevelev.* **1986, No. 4, 968 [193].**

Controller for dc Motor for Mixing of Solutions and Melts. *S. G. Galyba, A. I. Dobretsov, and G. A. Emel'chenko.* **1987, No. 4, 1012 [228].**

Automatic Specimen-Transport Device for Electron-Beam Apparatus. *Yu. A. Kaldyrov, B. A. Koval', O. V. Smirnov, B. Ya. Yankelevich, and E. B. Yankelevich.* **1987, No. 5, 1265 [219].**

Production of Smooth Glass Surfaces. *L. B. Boinovich, A. M. Emel'yanenko, V. B. Zlobin, and B. V. Deryagin.* **1988, No. 3, 815 [247].**

Metal Container for Specimen Transfer in Inert Atmosphere. *Yu. G. Galitsyn, V. I. Poshevnev, V. G. Mansurov, and A. S. Terekhov.* **1988, No. 4, 1057 [191].**

Device for Unsealing of Cells that Operate in Vessels under Pressure. *L. A. Blagonravov.* **1988, No. 6, 1597 [194].**

Device for Testing Substrate-Surface Purity. *S. A. Borodin, A. V. Volkov, A. I. Kolpakov, and L. L. Rafel'son.* **1990, No. 5, 1227 [230].**

Automated Setup for Study of Reaction Kinetics of Self-Propagating High-Temperature Synthesis. *V. A. Knyazik, A. E. Denisenko, E. A. Chernomorskaya, and A. S. Shteinberg.* **1991, No. 4, 918 [164].**

19.6. Electrical measurements

Cell for Simultaneous Measurement of Electric Conductivity and Thermo-EMF of Dissociated Compounds. *A. V. Ditman and I. N. Kulikova.* **1977, No. 1, 299 [258].**

Improved Variant of the "Rubin-1" Linear Voltmeter. *O. M. Nilov and V. A. Karpov.* **1978, No. 1, 237 [221].**

Determination of Particle Size by a Conductometric Method. *M. I. Shustov.* **1978, No. 2, 540 [257].**

Connection Circuit of Gas-Discharge Linear Indicator. *N. P. Zakharov.* **1978, No. 4, 1126 [257].**

Installation for Automatic Measurement of the Thermoelectric Power of Small Samples. *V. V. Tsurkan, K. M. Golant, and V. G. Veselago.* **1978, No. 6, 1637 [162].**

Method of Measuring Contact Resistances. *Yu. I. Ageev, I. A. Sagaidachnyi, and L. S. Stil'bans.* **1979, No. 4, 1157 [253].**

Double-Shield Connector. *G. A. Lobanov.* **1979, No. 4, 1168 [263].**

Device for Automatic Measurement of Half-Decay Time of a Voltage. *L. G. Kulemin, G. E. Leont'ev, and S. I. Tamoshyunas.* **1980, No. 3, 792 [228].**

Temperature-Compensated Low-Resistance Shunt. *V. A. Marapulets, I. A. Kulik, and V. I. Bormotova.* **1982, No. 1, 257 [225].**

Magnetic Contact Device. *R. S. Nakhmanson and S. Z. Rotman.* **1982, No. 1, 259 [227].**

Kilovoltmeter with Optical Feedback. *E. P. Bochkar', A. I. Zakharov, and A. P. Sokolov.* **1986, No. 1, 237 [204].**

Clamp Module for Measuring Conductivity of Brittle Organic Crystals. *R. B. Lyubovskii.* **1986, No. 3, 758 [227].**

Probe Preamplifier. *V. A. Lukin and V. I. Gromov.* **1986, No. 4, 963 [187].**

Mercury Probe with Stabilized Contact Area. *Ya. O. Roizin, V. I. Soloshenko, and N. N. Shevtsov.* **1986, No. 4, 964 [188].**

Determination of Degree of Nonuniformity of Resistivity Over Thickness of High-Resistance Layer. *V. M. Kogan and P. V. Pavlov.* **1987, No. 5, 1235 [194].**

Glass Cell for Electrochemical Experiments in Aqueous Solutions at Temperatures Above 100°C. *V. M. Tsionskii and L. B. Kriksunov.* **1988, No. 1, 259 [224].**

Graphite Specimen Holder for Measurement of Electrical Conductivity and Hall Effect in Aggressive Media. *A. V. Martinaitis and G. P. Steponkus.* **1988, No. 5, 1334 [201].**

Resistivity-Measurement Method that Eliminates the Contact Effect. *D. I. Aladashvili, Z. A. Adamiya, and K. G. Lavdovskii.* **1988, No. 6, 1572 [174].**

Contacts on Metal-Oxide Ceramic. *V. I. Vorontsov and V. K. Ignat'ev.* **1989, No. 6, 1414 [161].**

High-Temperature Apparatus for Measurement of Electrical Conductivity, Thermal emf, and emf of Electrochemical Cells of Crystals of Oxide Compounds. *Kh. S. Bagdasarov, A. I. Munchaev, and M. V. Remizov.* **1991, No. 2, 410 [163].**

19.6.1. Strain gauges

Strain Resistors Based on Silicon Whiskers. *A. I. Drozhzhin and N. K. Sedykh.* **1977, No. 5, 1485 [214].**

Low-Temperature Sensors of Temperature and Deformation. *A. I. Drozhzhin, A. A. Shchetinin, N. K. Sedykh, E. P. Novokreshchenova, and A. I. Dunaev.* **1977, No. 5, 1488 [216].**

Magnetostriction Force Transducer. *V. A. Belyaev, O.I. Mizhiritskii, and V. F. Shishmintsev.* **1977, No. 5, 1491 [219].**

Sensing Element of Strain Gauge Based on the Oscillistor Effect. *V. M. Bondar, V. V. Vladimirov, V. P. Doskoch, and A. I. Shchedrin.* **1981, No. 3, 827 [244].**

Determination of Residual Stresses in Boron Fibers. *V. P. Efanov and G. V. Makushkina.* **1981, No. 5, 1321 [206].**

Sensitivity of Strain-Gauge Resistors Based on $Al_xGa_{1-x}As$ Variband Films. *A. Gritsyus, S. Zhilenis, Ch. Shimkyavichyus, and E. Shimulite.* **1981, No. 5, 1322 [207].**

Tensoresistor with Tellurium-Gold Contact. *S. S. Varshava and E. I. Ferens.* **1983, No. 2, 486 [223].**

Mounting Method for Strain-Gauge Resistors that Increases Measurement Stability. *V. A. Kalinin and R. F. Novoselov.* **1990, No. 1, 240 [220].**

19.7. Welding, soldering, cementing

Separable Glass-Metal Junction for Use under Pressure. *O. A. Nabokov.* **1982, No. 1, 261 [229].**

Method of Fastening Piezoelectric Element by "Cold Soldering". *Yu. I. Kuzovkov and V. Ya. Nagin.* **1982, No. 4, 1035 [230].**

Technology for Soldering Solid Electrolyte Components. *M. D. Geraimchuk, V. Ya. Motsak, V. A. Evdokimov, and Ya. F. Motsak.* **1983, No. 3, 739 [225].**

An Electron-Beam Apparatus for Soldering the Components of Semiconductor Devices. *A. N. Komov, A. I. Kolpakov, N. I. Bondareva, and V. V. Zakharenko.* **1984, No. 5, 1286 [218].**

Production of Large Ceramic Articles of Complex Shape by High-Temperature Welding. *L. I. Lugin, R. F. Poltavets, A. N. Khokhlova, and N. S. Bychkov.* **1986, No. 4, 953 [179].**

Removal of Sealed-on Glass from Kovar Parts. *E. A. Kolenko.* **1987, No. 1, 225 [206].**

Chamber for Hot Molding of Ceramics in Vacuum. *G. K. Pokazan'eva, K. M. Demchuk, A. N. Martem'yanov, N. M. Chebotaev, and A. A. Samokhvalov.* **1989, No. 6, 1411 [158].**

Apparatus for Diffusion Welding in Vacuum. *Z. T. Azamatov, F. D. Mamatdzhanov, Kh. Kh. Rasulov, and Kh. Z. Tashpulatov.* **1990, No. 1, 229 [211].**

Device for Diffusion Bonding of Ultrasonic Piezoelectric Transducers. *Yu. I. Varenov, V. I. Kovalevskii, and Yu. M. Shcherbak.* **1990, No. 2, 484 [224].**

Fluxless Low-Temperature Soldering of Aluminum. *E. A. Kolenko.* **1991, No. 5, 1202 [196].**

Use of Sodium Hydroxide as Flux for High-Temperature Soldering of Chromium-Containing Steels and Alloys. *E. A. Kolenko.* **1991, No. 5, 1201 [195].**

19.8. Thin layers

Devices for Production of Langmuir–Blodgett Films (Review). *O. V. Chechel' and E. N. Nikolaev.* **1991, No. 4, 750 [19].**

Transparent Electrically Conductive Coatings Using Highly Dispersed Metallic Oxides. *Yu. I. Petrov and M. A. Manaevskii.* **1978, No. 1, 242 [226].**

Preparation of Subgroup IV Chalcogenides in a Double Quasi-closed Volume. *D. M. Freik, N. T. Maslyak, Ya. V. Solonichnyi, A. N. Grushin, and V. M. Shperun.* **1978, No. 2, 527 [245].**

Production of Transparent Conducting Coatings of Indium Trioxide. *B. P. Kryzhanovskii, B. S. Kolchev, and I. S. Ivanova.* **1978, No. 6, 1653 [176].**

Production of Free Thin Films of W, Ti, Fe, and Fe–Co Alloys. *N. V. Borovikova, V. V. Deriglazov, A. I. Egorov, R. I. Krutova, B. G. Peskova, G. N. Popova, L. A. Vaishnene, and A. K. Petukhov.* **1980, No. 6, 1519 [182].**

Production of Free Silica Films by Etching. *P. A. Pundur and R. V. Ėrnshteins.* **1981, No. 2, 536 [232].**

Conducting Layers of Indium Oxide Doped with Tin. *B. P. Kryzhanovskii and E. N. Orel.* **1981, No. 3, 816 [234].**

Electrolytic Deposition of Lead on a Thin Copper Wire. *E. A. Golovanev, V. D. Kalugin, N. M. Lemeshko, and N. S. Opaleva.* **1981, No. 5, 1324 [209].**

Thin Lithium Metal Targets. *S. N. Abramovich, B. Ya. Guzhovskii, and G. N. Sleptsov.* **1982, No. 1, 249 [218].**

Preparation of Thin Targets from the Radioactive Isotopes ^{54}Mn, ^{60}Co, and ^{207}Bi. *G. I. Karazhanova, A. F. Ivanchenko, and B. A. Morozov.* **1982, No. 2, 493 [192].**

Preparation of Thin Foil and Films of Molybdenum Isotopes. *L. G. Eishenko, A. A. Rozen, and G. V. Shula.* **1983, No. 4, 990 [223].**

Electrolytic Method of Making Thick Cobalt Foils. *V. N. Medyanik.* **1983, No. 5, 1245 [217].**

Production of ^{14}C Films from $^{14}CH_4$. *A. S. Dem'yanova, B. G. Novatskii, A. G. Obraztsov, V. A. Semochkin, A. N. Sidorenko, V. V. Sukharevskii, and I. K. Shvetsov.* **1985, No. 5, 1207 [196].**

Preparation of Thin NaCl Single Crystals by Anisotropic Dissolution. *S. G. Ekhanin, N. S. Nesmelov, and E. V. Nefedtsev.* **1986, No. 3, 755 [225].**

Silicon-Carbide Films for Vacuum-Ultraviolet Spectral Instruments. *N. G. Gerasimova, V. I. Garbuzova, N. A. Gorbacheva, F. A. Pudonin, and S. I. Sagitov.* **1988, No. 5, 1270 [152].**

Reduction of Aluminum-Film Thickness by Anodization. *I. S. Bakshi, V. V. Litvinenko, V. V. Potemkin, E. A. Sal'kov, B. I. Khizhnyak, and O. A. Yakubtsov.* **1989, No. 2, 496 [212].**

Spectrometer of Characteristic Energy Losses of Fast Electrons in Thin-Film Specimens. *M. V. Zharnikov, V. D. Gorobchenko, and G. V. Pilyagin.* **1990, No. 2, 383 [135].**

Preparation of Reflective Foil for Ultracold-Neutron Channels. *N. V. Borovikova, A. B. Brandin, A. I. Egorov, and V. M. Lobashev.* **1991, No. 3, 716 [218].**

Creation of Silicon-Nitride Films on Silicon during Implantation. *P. A. Aleksandrov, E. K. Baranova, V. V. Budaragin, K. D. Demakov, E. V. Kotov, and S. G. Shemardov.* **1991, No. 4, 972 [211].**

19.8.1. Thin-layer technology

Device for Investigating Phase Transition Dynamics in Thin Film Condensation. *O. I. Vasin, V. I. Petrosyan, S. I. Stenin, P. A. Skripkina, L. V. P'yankova, and A. A. Kroshkov.* **1977, No. 1, 207 [181].**

Sputtering of Reflecting Coatings of Bimetallic Mirrors. *E. A. Zevakina, M. G. Kozlov, and G. I. Levin.* **1978, No. 6, 1655 [178].**

PP-8 Radiometer to Monitor Foil Thinning by Jet Electropolishing. *A. I. Evstyukhin, V. V. Nikishanov, and A. V. Shul'ga.* **1979, No. 3, 860 [227].**

Preparation of Thin Semiconductor Wafers by Electrolytic Etching. *V. G. Shengurov, V. N. Shabanov, A. G. Gur'yanov, and S. I. Kolomiets.* **1979, No. 5, 1478 [262].**

Setup for Obtaining Tin Dioxide Films. *L. V. Astaf'eva and G. P. Skornyakov.* **1980, No. 5, 1313 [235].**

Cell for Reducing Thickness of Silicon Chips. *R. S. Nakhmanson and L. K. Popov.* **1980, No. 5, 1311 [234].**

Apparatus for Depositing Organic Films from the Vapor State in Response to UV Light. *G. M. Gusakov, Yu. S. Bokov, V. P. Lavrishchev, L. I. Livshin, and V. N. Nosov.* **1980, No. 6, 1521 [184].**

Deposition of Single-Crystal Film Structures on Unoriented Surfaces. *S. V. Gaponov, S. A. Gusev, B. M. Luskin, and N. N. Salashchenko.* **1982, No. 2, 474 [176].**

Photolithographic Method of Obtaining a Metallized Pattern on Specimens of the Material OKMAL. *I. E. Bylina, N. N. Kositsyna, Yu. M. Rotner, and L. P. Shaiko.* **1982, No. 4, 1026 [223].**

Method of Making Insular Films on Substrates. *A. V. Mitrofanov.* **1983, No. 3, 741 [226].**

Preparation of Polymer Gratings by Vacuum-Ultraviolet Photoetching. *K. A. Valiev, L. V. Velikov, S. D. Dushenkov, and A. V. Mitrofanov.* **1983, No. 4, 991 [224].**

A Device for Unilateral Thinning of Metal Foils. *N. V. Volkov, B. A. Kalin, D. M. Skorov, and I. I. Chernov.* **1984, No. 5, 1270 [204].**

Device for Producing Alloy Films with Variable Composition. *A. S. Vus, V. A. Dudkin, and V. E. Pukha.* **1986, No. 2, 505 [221].**

Cassette for Liquid-Phase Epitaxial Growth of Multilayer Periodic Structures. *S. N. Krasovitov, A. G. Kuznetsov, and A. L. Medvedev.* **1987, No. 1, 231 [211].**

Targets for Nuclear-Physical Research. *T. S. Nazarova, L. A. Marchenko, and E. O. Babichev.* **1987, No. 3, 720 [196].**

Preparation of Thin Silver Foils for Ion Spectrometer. *V. N. Dronin.* **1987, No. 5, 1249 [205].**

Method for Metallization of Dielectric Materials. *E. A. Kolenko and K. E. Kolenko.* **1989, No. 5, 1238 [233].**

Substrate Heater for Deposition and Annealing of Films of High-Temperature Superconductors in Oxygen. *M. E. Gershenzon and M. I. Falei.* **1989, No. 6, 1413 [160].**

Apparatus for Laser Deposition and Study of Films of High-Temperature Superconductors. *V. A. Gasparov, A. F. Dite, I. M. Ovchinnikov, N. M. Sorokin, and V. G. Yaremenko.* **1990, No. 1, 237 [217].**

Pulse Generator for Production of Thin Films by Wire Explosion. *V. I. Petrosyan and E. E. Dagman.* **1990, No. 2, 471 [213].**

Electrocapillary Sprayer for Targets of Organic Solutions. *Z. Szeglowski and Yu. S. Korotkin.* **1991, No. 1, 215 [206].**

Vacuum-Plasma Metallization of Dielectrics. *A. A. Derkach and V. A. Saenko.* **1991, No. 2, 467 [211].**

19.8.2. Vacuum evaporation

Thermionic Deposition Devices (Survey). *V. A. Saenko.* **1985, No. 3, 509 [9].**

Improvement of the Metal Vaporization Rate in Vaporizers with Water-Cooled Crucibles. *M. I. Vinogradov, V. F. Ul'yanov, V. G. Dokukin, and A. I. Tarasov.* **1977, No. 1, 205 [179].**

Setup for the Evaporation and Spectroscopic Investigation of Films in Vacuum. *G. A. Muranova, A. E. Perveev, Yu. D. Pushkin, and V. M. Zolotarev.* **1978, No. 4, 1121 [253].**

Production of Films of Substances with Complicated Composition by Discrete-Pulse Evaporation. *L. A. Seliverstov.* **1979, No. 1, 253 [237].**

Attachment to Vacuum System for Depositing Coatings on Strip. *A. V. Amosov, Yu. A. Zibuts, L. A. Matvienko, and Yu.-A. A. Lyubinavichyus.* **1980, No. 5, 1302 [226].**

Electron Vaporizer. *A. V. Zats, V. V. Mozgin, S. M. Khazan, V. G. Granovskii, and T. I. Peregon.* **1981, No. 1, 275 [258].**

System for Discrete Vaporization in a Standard VUP-4 Instrument. *M. A. Sevost'yanov, V. I. Kukuev, and Yu. Ya. Tomashpol'skii.* **1981, No. 4, 1077 [236].**

Device for Partial Ionization of a Stream of Vaporized Material in High Vacuum. *R. N. Gritskevich and V. E. Obukhov.* **1981, No. 5, 1316 [201].**

Electron-Beam Vaporizer for Ultrahigh Vacuum Systems. *O. I. Kapusta and V. G. Nazin.* **1982, No. 1, 263 [230].**

An Electron Evaporator for Successive Deposition of Refractory Metals. *L. N. Aleksandrov and T. M. Lomtatidze.* **1982, No. 3, 761 [217].**

A Device for Depositing Doped Films in a Quasiclosed Volume. *B. T. Boiko, S. V. Manin'ko, P. A. Panchekha, and V. A. Polotskii.* **1984, No. 5, 1268 [202].**

Thermionic Evaporation of Films of Multicomponent Chalcogenide Semiconductors. *T. I. Sergienko, V. V. Petrov, A. A. Kryuchin, G. Yu. Yudin, and K. P. Gritsenko.* **1985, No. 1, 239 [215].**

An Electron-Heated Evaporator. *L. F. Dubikovskii, V. I. Patoka, V. I. Silant'ev, N. V. Sukhoruchkin, and N. A. Shevchenko.* **1985, No. 2, 494 [212].**

Batcher for Powder Vaporized in VUP-4 Vacuum Station. *A. P. Semenov and V. M. Khozonkhonova.* **1985, No. 5, 1148 [145].**

Apparatus for Vacuum Laser Deposition of Films. *Yu. A. Timofeev.* **1987, No. 3, 721 [197].**

Electron-Beam Evaporation for Production of Multilayer Systems of High-Melting Metals. *V. M. Ievlev and A. S. Ognev.* **1987, No. 6, 1484 [183].**

Electron-Beam Evaporator of Silicon and Germanium for Molecular-Beam Epitaxy. *E. A. Samburskii and L. I. Basmanov.* **1988, No. 4, 1055 [189].**

Evaporator for Thin-Film Synthesis in Vacuum. *K. K. Murav'eva, M. D. Vorontsov, and V. P. Rubets.* **1988, No. 5, 1337 [203].**

Evaporator for Deposition of Thin Films of Large Area. *M. I. Fedorov, V. K. Maksimov, N. N. Tyukin, and S. V. Maslenikov.* **1990, No. 1, 216 [202].**

Electron-Beam Evaporators for Epitaxy of Elemental Semiconductors. *B. Z. Kanter and A. I. Nikiforov.* **1990, No. 2, 407 [156].**

Thermal Deposition of Films of Multicomponent Selectively Evaporated Alloys. *B. B. Anisimov, M. G. Gopodze, Sh. Z. Dzhamagidze, T. I. Elfimova, O. V. Zhukov, Yu. P. Luk'yanchikov, Yu. A. Mal'tsev, and R. R. Shvangiradze.* **1990, No. 3, 715 [210].**

Electrostatic Stabilization of Metal Drop for Electron-Beam Evaporation in Diode Gun. *I. E. Protsenko, V. G. Shamonya, A. V. Yaremenko, and L. A. Yaremenko.* **1991, No. 2, 461 [206].**

System for Stabilization of Film-Deposition Rate in Thermal Evaporation. *A. Yu. Klokov and T. I. Galkina.* **1991, No. 5, 1194 [189].**

Device for Low-Temperature Vacuum Thin-Film Condensation. *K. K. Murav'eva, V. P. Rubets, Ya. S. Smirnov, and I. P. Kalinkin.* **1991, No. 5, 1192 [188].**

19.8.3. Ion sputtering and etching

Magnetron Systems for Ion Sputtering of Materials (Review). *B. S. Danilin and V. K. Sirchin.* **1978, No. 4, 835 [7].**

Thin-Film Deposition by Ion-Beam Sputtering (Review). *A. P. Semenov.* **1990, No. 4, 735 [26].**

Ion-Bombardment Erosion of a Lithium Niobate Single Crystal. *L. D. Pokrovskii.* **1978, No. 2, 529 [247].**

Unit for Depositing Coatings by Precipitation of Ions Extracted from a Vacuum-Arc Plasma. *V. A. Osipov, V. G. Padalka, L. P. Sablev, and R. I. Stupak.* **1978, No. 6, 1650 [173].**

Sputtering of Niobium and Niobium Oxides in a Low-Power hf Discharge. *N. A. Tsurikov, N. M. Loboda, and S. I. Bondarenko.* **1980, No. 6, 1525 [187].**

Surface Charge Compensation in an Ion-Etched Insulator. *B. Z. Kanter and A. V. Kozhukhov.* **1984, No. 4, 937 [135].**

Hollow-Cathode Evaporators. *V. A. Saenko, A. I. Vladimirov, G. N. Veremeichenko, and V. A. Kravatskii.* **1985, No. 1, 234 [210].**

Magnetron Sputterer. *R. Z. Bakhtizin, E. K. Ratnikova, and V. P. Petrakov.* **1985, No. 5, 1204 [194].**

Chamber for Deposition of Thin Films by Cathode Sputtering. *Yu. B. Paderno and V. A. Zimin.* **1986, No. 1, 253 [216].**

Apparatus for Study of the Neutral Component of Ion Surface Sputtering. *A. Kh. Ayukhanov, M. V. Kremkov, E. Turmashev, and U. Khasanov.* **1986, No. 2, 437 [158].**

Device for Ion-Beam Sputtering in General-Purpose Vacuum Station (VUP-4). *A. P. Semenov.* **1986, No. 2, 503 [220].**

Apparatus for Reactive Ion Etching in Magnetron Discharge. *K. M. Kiziitov, I. A. Korzh, and A. A. Volynkin.* **1988, No. 2, 507 [205].**

Magnetron Sputterer with Auxiliary Anode. *I. T. Chuzhikov, S. P. Kolesnikov, and G. N. Bendeberya.* **1988, No. 2, 510 [207].**

Magnetron Sputtering Apparatus with Ion Etching Substrates based on VUP-4 Vacuum Station. *A. E. Dul'kin and V. N. Naumov.* **1989, No. 4, 970 [210].**

Device with Two Plasma Ion Sources for Thin-Film Growth. *A. P. Semenov and V. M. Khaltanova.* **1990, No. 6, 1439 [188].**

System for Programmable Microprocessing by Submicron Ion Beam. *A. N. Dubrovin, V. G. Dudnikov, D. V. Kovalevskii, and A. L. Shabalin.* **1991, No. 2, 430 [180].**

Radio-Frequency Magnetron Sputterer for Thin-Film Growth. *A. F. Belyanin, P. V. Pashchenko, and A. P. Semenov.* **1991, No. 3, 718 [220].**

Magnetron System for Coating Deposition on Tubular Specimens. *S. V. Antonenko and G. A. Komandin.* **1991, No. 4, 970 [210].**

Planar Magnetron for VUP-5 Universal Vacuum Station. *A. P. Semenov and B.-Sh. Ch. Batuev.* **1991, No. 5, 1197 [192].**

19.8.4. Control of thin-layer parameters

Method of Studying Changes in Structure of Thin Samples. *V. K. Gorshkov, L. N. L'vov, and V. D. Kalantarov.* **1977, No. 3, 652 [40].**

Microchemical Analysis of Thin Films by Elastic Scattering of ^{3}He. *Yu. Bukh, N, I. Balalykin, G. M. Osetinskii, and Wang Seng Ch'ang.* **1977, No. 5, 1295 [60].**

Compensation for Differences in Thermal Expansion during Thin-Film Measurements. *Yu. I. Shmatok and M. A. Markman.* **1978, No. 1, 253 [236].**

Method of Determining Dopant and Defect Distributions in a Diffusion Layer. *L. A. Koledov and L. N. Sergeev.* **1978, No. 2, 536 [253].**

Production of Oblique Cuts of Thin Films by Etching. *K. G. Hartsman, T. T. Dedegkaev, I. I. Kryukov, and V. A. Moshnikov.* **1979, No. 4, 1178 [271].**

Method for Measuring the Thickness of Dielectric Films and Refraction Index by the Method of Photoelectric Scanning. *Yu. A. Snezhko.* **1979, No. 5, 1463 [249].**

Projection Device for Obtaining Submicron Film Elements. *V. I. Zakharov, D. P. Kolesnikov, and A. V. Nikitin.* **1979, No. 6, 1642 [146].**

Use of Quartz Resonators For Determining the Characteristics of a Plasma Jet in Spraying Setups. *O. A. Zhuravlev and A. I. Fedosov.* **1981, No. 1, 272 [256].**

Preparation of Tunnel Junctions on Aluminum Single Crystals. *S. I. Dorozhkin.* **1981, No. 2, 534 [230].**

Measurement of Film Deposition Rates under Vacuum with Two Gauges. *P. N. Gol'fenshtein.* **1981, No. 2, 542 [239].**

Microwave Device for Measuring Thickness of Films on Low-Ohmic Substrates. *Yu. E. Gordienko, Yu. I. Gud, Yu. A. Dudkin, G. V. Zhukov, V. P. Nikitskii, and V. V. Starostenko.* **1981, No. 3, 813 [231].**

Method for Increasing Electric Conductivity of Vacuum Coverings Made from Refractory Materials. *A. V. Kondratov, A. I. Postnikov, and A. A. Potapenko.* **1982, No. 1, 266 [233].**

Optical Method of Measuring the Thickness of Transparent and Semitransparent Films. *I. M. Kashirskii, Yu. S. Bulyshev, and V. V. Sinitskii.* **1982, No. 2, 496 [195].**

Device for Observing Microheterogeneities in Interference Coatings. *E. I. Firsov and P. G. Shlyakhtenko.* **1982, No. 4, 1028 [225].**

A Device for Measuring the Specific-Resistance Anisotropy in Thin Films during Condensation. *M. V. Karpovskii, S. M. Kosmachev, and V. A. Dudkin.* **1983, No. 2, 476 [214].**

Measurement of the Thickness of Epitaxial Films of Gallium Arsenide. *I. O. Volozheninov and A. V. Ivashchuk.* **1983, No. 3, 712 [200].**

Automated Apparatus for Measuring the Mass of Films Deposited in a Glow Discharge. *V. A. Saksonskii, A. N. Shchurov, V. K. Potapov, A. A. Druzhinin, and M. V. Gerchikov.* **1984, No. 2, 497 [222].**

Photoelectric Interferometer of White Light for Measuring the Thickness of Transparent Films. *V. P. Babenko, S. I. Barabanov, V. A. Gorbarenko, N. N. Evtikhiev, and G. R. Levinson.* **1984, No. 4, 1036 [219].**

Ion Source for Layer Analysis of Thin Films. *B. Z. Kanter and A. V. Kozhukov.* **1984, No. 5, 1208 [149].**

A Photometer for Monitoring Film Thickness by the Two-Wavelength Method. *Sh. A. Furman and Z. É. El'gart.* **1984, No. 5, 1272 [205].**

Apparatus for Studying Adsorption Processes on Solid Surfaces by Ellipsometry and Mass Spectrometry. *Yu. I. Asalkhanov, D. D. Dondokov, and I. T. Pron'kinov.* **1985, No. 5, 1149 [146].**

Neutron-Activation Analysis for Measurement of Concentration Profiles in Ion Etching. *V. M. Tartakovskii and G. A. Vasil'ev.* **1986, No. 6, 1439 [179].**

Use of Ellipsometer as Interferometer of Equal-Slope Bands for Determination of Film Thickness. *A. Yu. Tronin.* **1988, No. 2, 505 [203].**

Device for Registration of Piezoelectric Effect in Films. *V. N. Zima.* **1989, No. 2, 504 [219].**

Echo-Pulse Method for Measurement of Thin-Film Parameters. *A. G. Veselov, V. I. Elmanov, and S. N. Ivanov.* **1989, No. 4, 978 [217].**

Parameters of Thin Films Sputtered in Vibrating-Electrode Discharge. *G. V. Smirnitskaya, E. M. Reikhrudel', and E. V. Yakhshieva.* **1989, No. 6, 1406 [153].**

Galvanic Coating-Area Meter. *Yu. V. Danilov and Yu. G. Podkin.* **1989, No. 5, 1229 [225].**

Analysis of Thin-Film Structures by Controlled Anodizing. *M. E. Golovchanskii, V. A. Marchenko, and A. V. Nikulov.* **1990, No. 3, 642 [149].**

Apparatus for Surface Element Analysis by Laser Ionization of Secondary Atoms. *I. V. Zakurdaev, D. E. Milovzorov, G. A. Sheroziya, and V. A. Shishlakov.* **1991, No. 3, 599 [115].**

Photometer for Quantitative Structure Analysis of Surfaces. *M. A. Vasil'ev, S. D. Gorodetskii, and A. M. Moseichuk.* **1991, No. 4, 949 [193].**

Study of Light-Element Distributions in Surface Layers of Solids. *G. M. Gusinskii, I. V. Kudryavtsev, V. O. Naidenov, and L. A. Rassadin.* **1991, No. 4, 952 [196].**

INDEX

INSTRUMENTS AND EXPERIMENTAL TECHNIQUES

Volume 34, Numbers 1-5, 1991

INSTRUMENTS AND EXPERIMENTAL TECHNIQUES
Volume 34, Numbers 1-5, 1991
(A translation of *Pribory i Tekhnika Éksperimenta*)

A

Abazov, V. A. - 223
Abdullin, S. K. - 53
Abel'masov, É. É. - 214
Abramov, V. G. - 334
Abrukov, V. S. - 984
Abrukova, L. S. - 984
Adamovich, M. L. - 697
Adeishvili, D. I. - 294
Aduev, B. P. - 646
Agalakov, Yu. G. - 635
Akimov, V. M. - 163, 166
Aksaev, É. E. - 367
Aksenov, V. A. - 887
Alde, D. - 1036
Aleev, A. N. - 37
Aleksandrov, P. A. - 972
Aleksandrov, V. I. - 731
Aleksandrov, Yu. G. - 236
Alekseev, A. P. - 1081
Alekseev, A. V. - 584, 643
Alekseev, L. K. - 763
Alekseev, S. V. - 905
Alekseevskii, D. D. - 347
Alent'ev, A. N. - 540
Aleshin, V. M. - 26
Alyakrinskii, M. K. - 62
Amamchyan, R. G. - 236
Andreev, S. P. - 1157
Andreeva, L. I. - 643
Andronov, O. I. - 375
Andrushchenko, A. L. - 625
Andryushchenko, L. A. - 543
Angelov, B. - 1059
Anisimov, S. N. - 313
Anistratov, A. T. - 1148
Antipenko, A. P. - 294
Antipov, Yu. M. - 29, 302, 499
Antonenko, S. V. - 970
Antonov, A. V. - 451
Antyukhov, V. A. - 811
Aref'ev, V. A. - 37
Areshkin, A. G. - 959
Arkhipov, A. V. - 588
Arsen'ev, D. I. - 463
Arzhatskii, F. P. - 703
Arzubov, N. M. - 173
Asalkhanov, Yu. I. - 169, 714
Avdoshin, E. S. - 909
Averkiev, V. V. - 421

B

Babak, L. I. - 1121
Babin, V. P. - 447
Baczynski, J. - 1089
Bagdasarov, Kh. S. - 410
Balandin, V. P. - 37
Ballod, L. A. - 497
Baltakhanov, A. M. - 584
Bantyukov, E. N. - 708, 1093
Barabash, A. S. - 313
Baranova, E. K. - 972
Barinova, T. A. - 389
Barkov, I. P. - 529, 797
Bashindzhagyan, G. L. - 336
Basiladze, S. G. - 328, 546
Batishche, S. A. - 1157
Batkin, V. I. - 252
Batuev, B.-Sh. Ch. - 180, 1197
Bavizhev, M. D. - 784
Bayukov, Yu. D. - 1030
Beketov, G. V. - 53
Belogurov, O. G. - 401
Belosheev, V. P. - 186
Belous, O. I. - 588
Belousov, A. S. - 37
Belov, A. A. - 662
Belov, N. S. - 463
Belyakov, E. S. - 556
Belyanin, A. F. - 718
Berezka, V. N. - 681
Berkovskii, A. G. - 622
Bezguzikov, V. P. - 1118
Bezuglov, V. G. - 581
Bezzubov, V. A. - 302
Binon, F. - 1036
Biri, Sh. - 830
Birulev, V. K. - 37
Blagonravov, L. A. - 922
Blazhevich, S. V. - 294
Blinov, A. V. - 53
Bobchenko, B. M. - 1030
Bochek, G. L. - 294
Bogachev, M. B. - 199
Bogdanov, D. D. - 602
Boiko, N. I. - 573
Boiko, V. I. - 240
Boikov, V. I. - 132
Boinovich, L. B. - 982
Boldarev, S. T. - 236
Bolozdynya, A. I. - 313
Bonch-Bruevich, V. V. - 662
Bondar', Yu. F. - 142
Bondarenko, M. V. - 1161
Bondarenko, V. I. - 480
Bondarev, A. L. - 1151
Bondarev, N. N. - 1118
Borani, I. - 534
Borisov, V. M. - 363
Borisyuk, L. A. - 847
Borodastov, A. B. - 53
Borodin, N. I. - 562
Borovik, A. A. - 610
Borovikova, N. V. - 716
Borovkov, S. D. - 767, 771
Bosamykin, V. S. - 594
Brandin, A. B. - 716
Britvich, G. I. - 789
Brodnikovskii, A. M. - 199
Brovchenko, V. G. - 375
Bruk, V. L. - 259
Brytkov, V. V. - 1098
Bryukhanov, A. N. - 1052
Budaragin, V. V. - 972
Bukanov, I. P. - 562
Bulgakov, B. M. - 588
Burilkov, D. T. - 37
Burkhanov, A. M. - 658
Burlachenko, T. V. - 196
Burlikov, V. L. - 784
Burylin, P. A. - 962
Buttsev, V. S. - 830
Bykov, D. F. - 445
Bykov, N. M. - 266
Bykova, V. V. - 962
Bystritskii, V. M. - 227

C

Cantoni, P. - 29

Chagovets, V. K. - 990
Chaikovskaya, V. T. - 116
Chargeishvili, M. S. - 37
Chechel', O. V. - 750
Chenakin, S. P. - 883
Chepilko, A. G. - 1184
Cheremnykh, P. G. - 385
Cheremukhina, G. A. - 70
Cherepin, V. T. - 697, 883
Chernetskii, V. D. - 53
Chernomorskaya, E. A. - 334, 918
Chernyi, V. V. - 272
Chertkov, A. A. - 633
Chervyakov, V. V. - 913
Chesnokov, A. V. - 321, 325
Chesnokov, V. Yu. - 290
Chevokin, V. K. - 625, 890
Chikhonadskikh, A. P. - 1118
Chikurov, V. A. - 355
Chistyakov, S. A. - 958
Chlachidze, G. A. - 1048
Cholakov, V. D. - 37
Chudakov, E. A. - 37
Chudovskii, V. A. - 124
Chuprov, P. N. - 849
Churakov, D. L. - 313
Churkin, Yu. V. - 986
Chuvilo, I. V. - 53
Chvyrov, A. S. - 37

D

Dadali, A. A. - 706
Danshin, E. A. - 807
Datsko, V. S. - 29, 504, 509
Davydenko, Yu. P. - 775
Davydov, S. N. - 893
Dedov, A. N. - 1086
Degtyarenko, P. V. - 278
Degtyarev, E. N. - 202
Dektyarev, S. V. - 173
Demakov, K. D. - 972
Demchuk, M. I. - 128
Demokritov, S. O. - 628
Denisenko, A. E. - 918
Denishchik, Yu. S. - 568
Denisov, A. G. - 801
Denisov, D. S. - 302, 317, 497
Denisov, V. P. - 221
Derkach, A. A. - 183, 467
Devitsin, E. G. - 37
Dinaburg, L. B. - 480
Dmitrevskii, Yu. E. - 160
Dobrov, V. M. - 53
Dod', I. I. - 699
Dodokin, A. P. - 233
Dolgov, A. N. - 421
Domanov, E. E. - 272
Dombrovskii, I. I. - 714
Donets, V. E. - 341
Donskikh, L. P. - 136
Donskov, S. V. - 1036
Doronin, A. V. - 26
Doroshkevich, E. A. - 1030
Dougar-Jabon, V. D. - 739
Dryannov, A. I. - 331
Dubrovin, A. N. - 430
Dudnikov, V. G. - 430
Dvorchik, S. E. - 138
D'yachko, A. N. - 136, 350
Dzhamaspishvili, S. I. - 58

E

Édel'man, V. S. - 2
Efimov, L. G. - 37
Efremenko, Yu. V. - 278, 1030
Eganov, V. S. - 336
Egorov, A. I. - 716
Éidlin, A. O. - 317, 497
Ekimenko, V. Yu. - 438
Éloev, O. Z. - 328
Elyutin, N. O. - 317, 497
Epifanova, O. V. - 483
Eremeev, R. V. - 504, 509
Eremenko, V. G. - 849
Eremenko, V. S. - 584
Eremin, V. K. - 534
Ermilov, A. N. - 454
Ermolenko, A. V. - 820
Ermolovich, É. S. - 144, 154
Ershov, V. G. - 708
Ershov, V. P. - 465
Erzikov, A. P. - 470
Es'kov, A. G. - 856
Evdokimov, S. T. - 375
Evin, O. A. - 1164
Evsikov, I. I. - 37
Evtikhiev, A. V. - 771

F

Faingerts, V. M. - 115
Fedonin, A. I. - 434
Fedorov, V. B. - 278, 1030
Fedorova, E. A. - 405
Fedortsov, A. B. - 959, 986
Fedotkin, A. S. - 147
Fedotov, A. A. - 1041
Feissal, Modkhen - 922
Feklin, V. V. - 347
Fel'dman, B. M. - 138
Filippov, D. V. - 321, 325
Fisun, A. O. - 588
Fomenko, A. M. - 37
Fomenko, D. E. - 1052
Frabetti, P. L. - 29
Furman, É. G. - 1127, 1130
Fursov, A. M. - 588

G

Gabeliya, M. S. - 58
Galakhov, I. V. - 581
Galaktionov, M. S. - 62
Gal'chinetskii, L. P. - 81
Galkina, T. I. - 1194
Gal'per, A. M. - 290
Ganapol'skii, E. M. - 867
Ganenko, V. B. - 681
Gapienko, V. A. - 801
Gasheev, A. S. - 581
Gavrilov, N. V. - 618
Gavrilov, V. B. - 278, 1030
Gavrilova, I. N. - 344
Gavrishchuk, O. P. - 504, 509
Gazerov, B. L. - 977
Gazizov, I. M. - 529, 797
Gel'fgat, V. I. - 1070
Gerasimchuk, A. G. - 638
Gerasimov, A. I. - 147, 151, 993
Germanova, K. - 1059
Gershenzon, E. M. - 367
Geshkov, I. M. - 37
Getmanov, V. N. - 252
Gilev, A. I. - 815
Gil'mutdinov, F. Z. - 451, 453
Gizhevskii, V. A. - 576
Glagolev, V. V. - 1048
Globus, M. E. - 298
Glukhovskoi, B. M. - 1140
Glyanenko, A. S. - 339
Gogolev, A. N. - 53
Golikov, Yu. K. - 893
Golovanivskii, K. S. - 739
Golovin, A. V. - 385
Golovin, V. M. - 130, 193
Golovkin, S. V. - 834
Golovko, N. G. - 681
Gol'tsman, G. N. - 367
Golubev, V. V. - 834

Golutvina, I. G. - 801
Goman'ko, A. A. - 142
Gorbatov, S. S. - 1113
Gorbenko, V. G. - 681
Gorchakov, V. K. - 209
Gorin, Yu. P. - 29, 499
Gornushkin, Yu. A. - 29, 499
Gorodetskii, S. D. - 949
Goryachev, S. B. - 615
Goryainov, N. A. - 278, 1030
Gostilo, V. V. - 344
Gouanere, M. - 1036
Grafodatskii, O. S. - 438
Grankin, V. M. - 875
Greshnov, M. A. - 352
Grigalashvili, T. S. - 37
Grigor'ev, A. I. - 339
Grigor'ev, L. A. - 307
Grinev, B. V. - 543
Grishchuk, Yu. G. - 1030
Grishenkov, S. A. - 767
Grishuk, Yu. G. - 278
Gritsinin, S. I. - 445
Gritsyna, V. P. - 594
Gritsyus, A. A. - 720
Gromov, I. A. - 1104
Grushvitskii, R. I. - 1086
Gubanov, V. P. - 269
Gudkov, V. A. - 900
Gudkov, V. V. - 658
Gudov, S. N. - 581
Gul'ko, V. M. - 1024
Gur'yanov, V. G. - 227
Gusel'nikov, V. G. - 622
Gushchin, E. N. - 785
Gushchin, O. B. - 1030
Gushchin, V. A. - 681
Gusinskii, G. M. - 952
Gus'kov, B. N. - 37
Gusyatnikova, E. E. - 405
Gutenko, V. T. - 160

I

Ikonnikov, A. O. - 607
Ikryanov, I. M. - 252
Il'chenko, S. A. - 607
Il'in, A. Yu. - 581
Inyakin, A. V. - 1036
Ionesyan, I. A. - 227
Iordanishvili, E. K. - 447
Ismailov, M. M. - 1145
Is'yanov, V. É. - 883
Ivanchenko, I. M. - 37
Ivanisik, A. I. - 709
Ivanov, A. B. - 70
Ivanov, A. G. - 112
Ivanov, A. S. - 959, 986
Ivanov, E. N. - 584
Ivanov, E. V. - 449, 474
Ivanov, K. N. - 169
Ivanov, L. P. - 571
Ivanov, S. N. - 871
Ivanov, V. N. - 266
Ivanova, I. N. - 1151
Ivanovskii, S. A. - 815
Izmailov, A. M. - 655

K

Kachanov, V. A. - 797, 1036
Kadagidze, N. O. - 37
Kadykov, M. G. - 78, 504, 509, 779
Kadzhar, Ch. O. - 925
Kalandarishvili, A. G. - 988
Kalashnikov, V. V. - 276
Kalinkin, I. P. - 1192
Kamenev, L. V. - 434
Kamzin, A. S. - 307
Kanaev, G. G. - 1127
Kanunnikova, O. M. - 451, 453
Kanygin, S. A. - 592
Kapishin, M. N. - 37
Kapishnikov, N. K. - 157
Kaplii, A. A. - 294
Kaplun, S. M. - 649
Kapustin, A. I. - 584
Kargapol'tsev, A. V. - 438, 784
Karpenko, N. N. - 37
Karpukhin, V. I. - 734
Kashiya, V. G. - 988
Kashlyuk, A. V. - 119
Kassirov, G. M. - 419
Katrich, S. A. - 1107
Katrunov, K. A. - 81
Kats, M. M. - 1014
Kazakov, V. R. - 401
Kazberuk, D. V. - 1151
Kekelidze, V. D. - 37
Khaikin, M. S. - 413
Khailov, V. M. - 887
Khaneev, N. P. - 731
Khanin, V. V. - 1166
Khaplanov, M. G. - 689
Kharchevnikov, V. K. - 1133
Kharitonov, I. Yu. - 669
Kharlamov, A. V. - 767, 771
Khasanov, F. M. - 278, 1030
Kheruvimov, A. N. - 1041
Khitev, G. V. - 771
Khodyrev, V. Yu. - 797
Khokhlov, A. V. - 483
Khrenov, B. A. - 523
Khristiansen, G. B. - 523
Khristoforov, O. B. - 363
Kiknadze, G. I. - 1177
Kirillov, D. A. - 37
Kirillov, G. A. - 581
Kirilyuk, A. I. - 628
Kirsanov, M. A. - 48, 66
Kiryukhin, Yu. B. - 913
Kiselev, B. V. - 389
Kiselev, V. I. - 442, 665
Kiselev, Yu. F. - 93
Kitaev, M. I. - 856
Klimovich, S. U. - 847
Klochko, V. M. - 827
Klochkova, A. M. - 1180
Klokov, A. Yu. - 1194
Klyachin, N. A. - 311
Knapp, E. A. - 1036
Knyazev, B. A. - 191
Knyazik, V. A. - 918
Kobzar', Yu. M. - 1067
Kochetkov, V. V. - 571
Kodirov, A. A. - 447
Kokshaiskii, I. N. - 839
Koldashov, S. V. - 290
Kolenko, E. A. - 1201, 1202
Kolesnikov, L. Ya. - 681
Kolomiets, N. F. - 1024
Komandin, G. A. - 970
Komissarov, P. Yu. - 1052
Komissarov, S. N. - 53
Kondrashov, A. A. - 646
Kondrat'ev, L. N. - 1014
Konenkov, N. V. - 380
Konevskii, V. S. - 675, 767
Konoiko, A. I. - 1161
Konoplyannikov, A. V. - 693
Konovalov, B. S. - 53
Konstantinov, A. B. - 480
Korablev, V. V. - 893
Korableva, I. V. - 396, 643
Kordyuk, A. A. - 1203
Korenev, M. S. - 476
Kornilov, S. T. - 638
Korobkin, V. V. - 827
Korobov, A. I. - 839
Korolev, Yu. V. - 53, 259
Korotin, B. N. - 1125
Korotkin, Yu. S. - 215
Korovin, S. D. - 266, 269
Korsunov, A. R. - 861

Kosarev, E. L. - 1070
Kosarev, I. G. - 37, 504, 509
Kositsyn, V. F. - 803, 842
Kosmatov, S. L. - 693
Kosov, M. V. - 278, 1030
Kostyreva, E. B. - 48
Kosyachkov, A. A. - 697
Kotkov, A. A. - 243
Kotov, E. V. - 972
Kotov, V. I. - 1019
Kotov, Yu. A. - 576
Koval'chuk, M. V. - 669
Kovalenko, S. E. - 640
Kovaleva, L. A. - 1148
Kovalevskii, D. V. - 430
Kovivchak, V. S. - 239
Kovtun, V. G. - 1067
Kozarenko, E. N. - 834
Kozhevnikov, A. V. - 393
Kozhevnikov, V. I. - 451, 453
Kozintseva, M. V. - 1133
Kozlov, V. A. - 37, 214
Kramarenko, V. N. - 1184
Krasnikov, A. V. - 317
Krasnokutskii, R. N. - 130
Krasnyuk, N. N. - 407
Krastev, V. R. - 37
Kreindel', Yu. E. - 618
Kreines, N. M. - 628
Krementsov, V. I. - 142
Kretova, M. V. - 689
Kriksunov, L. B. - 1179
Krivandina, E. A. - 693, 789
Krivonosov, E. V. - 675, 767
Kruglov, A. A. - 48, 66
Kruglyashov, S. B. - 1148
Kruusing, A. - 1095
Krylov, E. V. - 859
Krylov, V. D. - 142
Kryukov, A. P. - 497
Kubarev, V. V. - 1115
Kubarev, Yu. V. - 177
Kucherov, A. I. - 581
Kudinov, V. I. - 628
Kudryashov, O. V. - 470
Kudryavtsev, I. V. - 952
Kudryavtsev, V. N. - 968
Kukhtin, V. V. - 504, 509, 779
Kukushkin, I. A. - 513
Kuleshov, S. V. - 278, 1030
Kuleshova, L. N. - 1030
Kulibaba, V. I. - 294
Kulidzhanov, F. G. - 497
Kunavin, A. T. - 607
Kurchaninov, L. L. - 130, 529, 785, 797
Kuryapin, K. A. - 363
Kushin, V. V. - 401
Kutsaenko, V. V. - 209
Kuz'michev, Yu. P. - 581
Kuz'min, N. A. - 37
Kuz'mina, M. V. - 605
Kuz'muk, A. A. - 1157
Kuznetsov, B. A. - 559
Kuznetsov, E. N. - 336
Kuznetsov, S. G. - 278, 1030

L

Lapik, R. M. - 615
Lapin, V. V. - 1052
Latushkin, S. T. - 1052
Latyshev, V. V. - 227
Laur, V. I. - 480
Lavren'tev, A. A. - 62
Lazarev, V. B. - 116
Lebedev, Ya. S. - 202
Legostaev, V. M. - 425
Leitner, R. - 499
Leksin, G. A. - 278, 1030
Leksin, V. V. - 795
Lelli, R. Leitner, V. - 29
Lepekhin, N. M. - 144, 154
Letenko, D. G. - 959, 986
Levchenko, A. A. - 478
Levina, L. A. - 1041
Levkovich, A. V. - 465
Likhachev, M. F. - 37
Likholat, V. M. - 678
Liksonov, V. I. - 321, 325
Lipatov, A. S. - 1133
Litvinov, L. A. - 675, 767
Litvinov, M. M. - 693
Livshits, A. I. - 177
Lobanovskii, D. A. - 325
Lobashev, V. M. - 716
Lobov, S. I. - 262, 1027
Loginov, L. V. - 454
Logutenko, S. L. - 581
Loladze, V. L. - 112
Lomidze, N. L. - 37
Lomonova, E. E. - 731
Lontski, E. - 84
Lopez, T. - 1036
Losev, V. F. - 640
Lovenetskii, A. V. - 584
Ludikov, V. V. - 890
Luppov, V. G. - 465
Lyamin, V. N. - 1019
Lyamin, Vl. N. - 1019
Lyapidevskii, V. K. - 311, 401, 421
Lyubchenko, L. S. - 706
Lyubimov, A. L. - 37
Lyusikov, M. P. - 187

M

Magunov, A. N. - 727
Maiborodin, A. V. - 1113
Makarenko, V. E. - 513
Makarov, V. A. - 1182
Makogon, V. M. - 347
Maksimov, A. N. - 37
Maksimov, V. Yu. - 311
Malakhov, A. I. - 801
Maleev, D. I. - 1063
Malek, M. P. - 227
Malevich, N. A. - 1157
Malinovskii, E. I. - 37
Malkhasyan, R. T. - 873
Malyarenko, A. M. - 534
Malyi, V. I. - 709
Malykh, N. I. - 257
Malyshev, S. A. - 193
Malyukov, S. N. - 1048
Mamatdzhanov, F. D. - 701
Mansurov, Yu. A. - 352
Man'yakov, P. K. - 37
Manylov, V. I. - 913
Marchevskii, M. V. - 413
Markitanov, Yu. V. - 584
Martinson, A. A. - 177
Maslov, E. B. - 699
Maslov, N. I. - 294
Matveev, S. K. - 317, 497
Matveeva, E. N. - 801
Mazunov, V. A. - 378
Medvedev, I. I. - 134
Mel'chenko, S. V. - 399
Meleta, E. A. - 257
Melikhov, S. V. - 115, 136, 347, 350, 1121
Melitauri, G. V. - 37
Mel'nikov, E. A. - 801
Menabde, N. E. - 712
Menteshashvili, T. U. - 37
Mertig, M. - 465
Merzlyakov, D. V. - 451
Meshcherov, B. R. - 276
Meshkov, I. N. - 615
Meshkov, O. F. - 1110
Mezhov-Deglin, L. P. - 478
Mikhailenko, B. V. - 1024

Mikhailov, M. M. - 673
Mikhailov, V. I. - 977
Mikhailov, V. P. - 128
Mikhailov, V. V. - 290
Mikhailov, Yu. V. - 1036
Mikhalin, N. E. - 797
Mikheev, A. A. - 425
Mikheev, G. M. - 1063
Mikulina, O. É. - 974
Milovzorov, D. E. - 599, 605
Minashvili, I. A. - 1048
Mironov, A. V. - 1154
Mirskii, G. I. - 367
Mishachev, V. M. - 236
Mitrofanov, N. L. - 520
Mitrofanov, V. P. - 407
Mitrofanova, E. V. - 655
Mitsel'makher, G. V. - 29, 499
Mkheidze, G. P. - 142
Mlynarchik, M. - 811
Mnev, V. V. - 218
Modzolevskii, V. I. - 864
Mogileva, T. N. - 1063
Mogil'nitskii, A. A. - 1177
Moiseenko, V. V. - 1136
Moisenz, P. V. - 37
Molchanov, Yu. D. - 513
Molnar, I. - 830
Monov, N. A. - 334
Morgun, O. N. - 272
Morozov, A. N. - 37
Moseichuk, A. M. - 949
Mosienkov, B. Kh. - 458
Mostovnikov, V. A. - 1157
Movsesyan, G. L. - 873
Mozgunov, V. N. - 615
Mrochek, Zh. A. - 880
Muftakhov, M. V. - 378
Mun, G. V. - 1145
Munchaev, A. I. - 410
Murav'eva, K. K. - 1192
Mursaev, A. Kh. - 1086
Murugov, V. M. - 581
Musaev, S. A. - 925
Musienko, Yu. V. - 785
Mysenko, B. I. - 1110

N

Nabiev, M. B. - 447
Nagornaya, L. L. - 298
Naidenov, V. O. - 952
Naimushin, A. P. - 686
Nardaya, Yu. I. - 712
Nasibov, N. A. - 655
Nasibullin, R. S. - 965
Naumov, P. Yu. - 290
Nayanov, V. I. - 1110
Nazarenko, P. N. - 1161
Nechin, Yu. A. - 523
Nekrasov, V. N. - 699
Nemoshkalenko, V. V. - 1203
Nepokoichitskii, G. A. - 571
Nevolin, V. I. - 564
Nikitin, B. G. - 1203
Nikitin, V. M. - 887
Nikityuk, N. M. - 88, 995
Nikolaenko, A. M. - 669
Nikolaev, A. G. - 546
Nikolaev, E. N. - 750
Nikolaev, V. L. - 227
Nikolaeva, E. G. - 1145
Nikolov, L. - 1059
Nosenko, S. P. - 913
Novikov, M. N. - 734
Novikov, V. P. - 767, 771
Novopashin, S. A. - 1136
Novozhilov, V. P. - 686
Nozdrin, A. A. - 29, 499

O

Obodovskii, I. M. - 48, 66
Obukhov, Yu. V. - 1166
Oleinik, G. M. - 992
Oleinik, S. V. - 1041
Oleinik, V. O. - 212
Olimov, Kh. O. - 447
Ol'khovskii, V. L. - 883
Ol'shevskii, A. G. - 29, 499
Onopko, V. V. - 725
Orlinskii, S. B. - 1104
Orlov, A. V. - 53
Orlov, Yu. V. - 605
Ornatov, A. A. - 771
Osadchii, E. G. - 703
Osiko, V. V. - 731
Osin, V. A. - 581
Ostrogina, O. M. - 257
Otroshchenko, G. A. - 513
Ovchinnik, V. D. - 294, 681
Ovchinnikov, A. V. - 564
Ovechkin, A. E. - 298
Ozerov, M. F. - 675

P

Pak, V. S. - 393, 958
Pakhtusov, A. B. - 1136
Pal'chik, V. V. - 37
Palombo, F. - 29
Pal'yanov, P. A. - 646
Panchenko, Yu. N. - 640
Panov, V. P. - 1019
Parfenov, A. N. - 37
Parkhomenko, O. A. - 725
Pashchenko, P. V. - 718
Pashechko, N. I. - 1067
Pashuk, A. V. - 221
Paszoni, J. - 37
Pavlov, A. M. - 625
Pavlovskaya, N. G. - 262, 1027
Pavlovskii, A. I. - 594
Pazhitnykh, P. V. - 124
Pegoev, I. N. - 581
Peigneux, J. P. - 1036
Peresypkin, A. I. - 723, 789
Perevozchikov, A. N. - 405
Perezhogin, V. B. - 401
Perlov, D. D. - 233
Perov, N. S. - 852
Peshekhonov, D. V. - 504, 779
Petrakov, V. N. - 581
Petrovskii, V. V. - 546
Petrukhin, A. I. - 29, 499
Petrukhin, E. A. - 389
Pilipenko, T. D. - 801
Pilipenko, Yu. K. - 465
Pishchulin, I. V. - 763
Pitskhelauri, T. G. - 37
Piven', L. A. - 807
Pivnyuk, N. A. - 278, 1030
Pleshch, A. G. - 1177
Podsosonnyi, A. S. - 389
Podtaev, S. Yu. - 425
Podurets, K. M. - 520
Podus, L. P. - 675
Podvyaznikov, V. A. - 625
Pokachalov, S. G. - 48, 66
Pokidov, N. A. - 1019
Pokrovskii, M. Yu. - 1121
Polevin, S. D. - 266
Polyakov, N. P. - 355
Polyakov, V. I. - 1161
Pomelov, N. N. - 1014
Pomerantsev, V. V. - 523
Ponomarev, R. V. - 723
Popov, A. V. - 290
Popov, V. A. - 1107
Portugal'skii, V. R. - 915
Poryvaev, S. G. - 979
Postoev, V. E. - 130
Potapchuk, V. S. - 516
Potapov, V. T. - 209

Potashov, S. Yu. - 37
Pribytok, G. A. - 128
Privalov, V. E. - 1154
Prokesz, A. - 37
Prokhorov, A. M. - 625, 890
Prokhorova, T. I. - 257
Prokoshkin, Yu. D. - 1036
Prosin, B. V. - 1019
Protsenko, E. D. - 638
Protsenko, I. E. - 461
Protsenko, Yu. L. - 223
Pud, A. A. - 974
Pukhov, S. P. - 262, 1027
Pushkarev, V. P. - 1121
Pustovalov, E. V. - 977

R

Radchenko, V. I. - 968
Rad'ko, V. E. - 929
Raevskii, I. M. - 445
Rafalovskii, V. A. - 1203
Ragimov, T. K. - 803
Rakhmatullin, R. M. - 1104
Ral'chenko, M. I. - 584
Rassadin, L. A. - 952
Rats, Yu. V. - 1173
Razinova, I. G. - 66
Redchuk, A. A. - 827
Red'ko, V. P. - 187
Remizov, M. V. - 410
Rivkis, L. A. - 227
Rodin, A. M. - 602
Rodionov, A. N. - 209
Rodolyak, E. R. - 1070
Rogal', A. D. - 1014
Roitman, A. M. - 266
Romanchuk, I. A. - 880
Roman'kov, V. M. - 775
Romanov, O. V. - 1019
Romanov, Yu. A. - 771
Romanovskii, Yu. A. - 177
Romashchin, A. A. - 1019
Rosinskii, S. E. - 177
Rozanova, T. B. - 571
Rubashkin, A. L. - 681
Ruben, E. A. - 649
Rubets, V. P. - 1192
Rubina, O. G. - 801
Rubinov, Yu. A. - 635
Rudavskii, É. Ya. - 990
Rudenko, A. I. - 84, 815
Rudenko, V. N. - 438
Rukin, S. N. - 357, 1101
Rukoyatkin, P. A. - 88
Rusakov, S. V. - 37
Rusakovich, N. A. - 1048
Rusakovich, N. L. - 1048
Rusin, L. Yu. - 163, 166
Rusov, V. A. - 396, 643
Rusov, V. D. - 550
Rutkevich, S. M. - 223
Ryabchikov, A. I. - 173
Ryabtsev, A. B. - 1157
Ryazantsev, O. B. - 693
Rybakov, V. V. - 37
Rybin, E. M. - 363
Rybnikov, V. M. - 546
Rykalin, V. I. - 693, 723
Rykalin, V. V. - 529, 797
Rylkin, Yu. A. - 673
Ryzhikov, V. D. - 81, 298, 807
Ryzhkov, A. M. - 771

S

Sabel'nikov, A. M. - 231
Sadovnikov, V. N. - 37
Saenko, V. A. - 183, 467
Safronov, I. A. - 573
Saidov, É. Ch. - 925
Saimanin, A. E. - 1081
Salakhutdinov, G. Kh. - 421
Samigulin, K. R. - 1145
Samoilenko, V. D. - 1036
Samoilov, V. N. - 830
Samorodov, I. I. - 480
Samorodov, Yu. A. - 1019
Sandler, V. A. - 962
Sapozhnikov, D. V. - 607
Saraikin, A. I. - 529, 797
Savchenko, O. Ya. - 252
Savchenko, V. A. - 594
Savel'ev, B. I. - 1166
Savelov, A. S. - 421
Savin, A. A. - 142, 336
Savinov, S. V. - 373
Sazonov, V. F. - 334
Schmidt, B. - 534
Sekisov, F. G. - 419
Selegenev, E. M. - 807
Selektoy, Ya. M. - 53
Seleznev, V. S. - 775
Selikov, A. V. - 100, 552, 815
Selivanchik, N. M. - 1140
Seliverstov, V. A. - 458
Semenkevich, M. M. - 880
Semenov, A. A. - 1113, 1125
Semenov, A. B. - 209, 556
Semenov, A. D. - 367
Semenov, A. M. - 1188
Semenov, A. P. - 180, 718, 1197
Semenov, A. Yu. - 801
Semenov, V. K. - 78, 504, 509
Semenova, N. E. - 622
Semiletov, A. S. - 669
Semyannikov, P. P. - 875
Senatorov, K. Ya. - 571
Senchishin, V. G. - 523
Sen'ko, V. F. - 559
Serga, E. V. - 767, 771
Serkov, V. V. - 1170
Sevast'yanov, B. K. - 218
Shabalin, A. L. - 430
Shagin, P. M. - 1036
Shalygin, A. B. - 504
Shamanin, I. V. - 240
Shamonya, V. G. - 461
Shamov, A. A. - 196
Shanidze, R. G. - 37
Shapoval, G. S. - 974
Sharikov, G. A. - 458
Sharonov, M. Yu. - 218
Shatokhin, P. V. - 1164
Shchemelev, V. N. - 625
Shchepillo, V. V. - 130
Shcherbitskii, V. G. - 823
Shchukin, Yu. D. - 328, 546
Sheinin, A. B. - 834
Shelomovskii, V. V. - 887
Shemardov, S. G. - 972
Shemetov, V. A. - 1115
Shenkevich, A. L. - 1177
Sheroziya, G. A. - 599
Sheshin, E. P. - 458
Sheshin, G. A. - 990
Shikanov, A. E. - 1024
Shilimanov, S. N. - 871
Shilin, Yu. N. - 669
Shilov, V. A. - 66
Shil'shtein, S. Sh. - 520
Shirapova, D. Ts. - 169
Shishlakov, V. A. - 599, 605
Shishov, O. V. - 1086
Shkarupin, V. V. - 341
Shpak, I. V. - 827
Shpak, V. G. - 871
Shpakov, I. R. - 1098
Shramenko, B. I. - 294
Shteinberg, A. S. - 918
Shteingart, L. M. - 187
Shtepa, V. I. - 405

Shtern, A. M. - 649
Shubin, O. A. - 618
Shubkin, N. G. - 913
Shulyachenko, V. N. - 53
Shumakov, A. V. - 803, 842
Shumilova, N. N. - 419
Shunevich, S. A. - 193
Shuvalov, R. S. - 130, 785
Shuvalov, S. M. - 278, 1030
Shvartsman, B. B. - 278, 1030
Shvets, M. O. - 734
Sidorchuk, S. I. - 602
Sidorova, I. K. - 257
Sigeikin, I. M. - 720
Silakov, S. S. - 380
Simanchuk, V. I. - 438, 784
Sin'govskii, A. V. - 1036
Sinitsa, S. A. - 1154
Sinyavskii, A. V. - 1186
Sinyavskii, V. I. - 795
Sirunyan, A. M. - 93
Sitnikov, S. I. - 107
Sivkov, R. A. - 1182
Sklyarenko, S. K. - 1184
Slovikovskii, B. G. - 357, 1101
Smetanin, S. G. - 887
Smirnitskii, A. V. - 278, 1030
Smirnov, A. I. - 202
Smirnov, A. V. - 132
Smirnov, G. I. - 779
Smirnov, P. A. - 37
Smirnov, S. V. - 321, 325
Smirnov, V. A. - 37
Smirnov, Ya. S. - 1192
Smirnova, T. V. - 622
Smykov, L. P. - 70
Sobolev, B. P. - 693, 789
Sokirkin, V. A. - 849
Sokovnin, S. Yu. - 576
Soldatov, M. M. - 693
Solov'ev, N. G. - 763
Solov'ev, Yu. V. - 37
Solov'eva, G. M. - 29
Solov'yanov, V. L. - 797
Somenkov, V. A. - 520
Sorokin, A. A. - 233
Sorokin, P. V. - 681
Sorokina, M. F. - 451, 453
Sotnikov, V. S. - 720
Sporykhin, N. A. - 144
Stankevich, V. A. - 529, 797
Stavrov, A. A. - 1161
Stekhanov, V. N. - 313
Stepanov, A. M. - 53
Stepanov, A. V. - 373
Stepanov, V. E. - 321, 325
Stepanyan, S. S. - 93
Sterkhov, A. L. - 1173
Sterzhanov, N. I. - 699
Stolin, V. L. - 1030
Stolupin, V. A. - 227
Stolyarov, A. V. - 259
Strel'nikov, D. V. - 605
Stroev, K. N. - 566
Stroev, N. N. - 566
Strokach, A. A. - 1184
Strokan, N. B. - 534
Stroot, J. P. - 1036
Suchkov, D. A. - 1030
Sugonyaev, V. P. - 1036
Sukhanov, V. L. - 534
Sultanaev, R. M. - 442, 665
Sulyga, V. A. - 298
Sumaroka, A. M. - 1180
Sushchenko, A. N. - 622
Sushkov, V. V. - 785
Svetov, A. L. - 88
Sviridov, V. I. - 550
Sychev, S. P. - 913
Syresin, E. M. - 615
Sysoeva, E. P. - 298
Syzdalev, V. I. - 78
Szalal, P. - 37
Szeglowski, Z. - 215

T

Tarasenko, V. F. - 399
Tashaev, Yu. N. - 177
Tashpulatov, Kh. Z. - 701
Tasmagulov, I. D. - 1164
Tatarenko, A. S. - 1110
Tatishvili, G. T. - 37
Taushan, B. A. - 1151
Terekhov, V. I. - 775
Tereshchenko, P. T. - 725
Teterina, N. I. - 341
Timakov, V. A. - 602
Timofeev, V. V. - 678
Tishenko, A. M. - 861
Titov, A. A. - 115, 136, 347, 350, 1121
Todorov, P. T. - 37
Tomskikh, O. N. - 1130
Tonchev, M. - 1059
Torchinskii, I. A. - 986
Trayanov, R. K. - 37
Tsakadze, L. M. - 712
Tsipenyuk, Yu. M. - 516
Tsulaya, M. I. - 58
Tsyganov, F. A. - 163, 166
Tsymbalenko, V. L. - 837
Tumanov, V. I. - 276
Tunik, E. I. - 109
Tupikin, V. D. - 1113
Tupitsyna, I. A. - 298
Turov, V. F. - 53
Tymper, S. I. - 638
Tyugin, A. B. - 520
Tyurin, A. S. - 325

U

Ugryumova, T. G. - 1151
Ulumbekov, R. F. - 1041
Uratskoev, L. I. - 321
Urutskoev, L. I. - 325
Usanov, D. A. - 1113, 1125
Ushakov, V. A. - 1019
Usol'tseva, N. V. - 962

V

Vaisburd, D. I. - 646
Vakhromeev, B. A. - 1019
Valiakhmetov, I. A. - 965
Van'kov, A. B. - 633
Vanyushin, I. A. - 53
Vashaev, O. A. - 269
Vashkevich, V. V. - 523
Vasil'chenko, V. G. - 693, 789
Vasil'ev, B. I. - 1164
Vasil'ev, M. A. - 949
Vasil'ev, S. E. - 70
Vasil'ev, Yu. V. - 378
Vatutin, V. M. - 209, 556
Vazdik, Ya. A. - 37
Vazhenin, V. A. - 771
Velev, G. V. - 1048
Venediktov, V. A. - 401
Venig, S. B. - 1125
Verbitskaya, E. M. - 534
Veremeichenko, G. N. - 183
Veres, I. - 37
Veretil'nyi, A. A. - 706
Verkhoturov, V. I. - 438
Verkhovskii, V. S. - 399
Vetokhin, S. S. - 193
Vikulov, V. F. - 763
Vinenko, V. G. - 1113
Vizir', V. A. - 913
Vlasov, V. P. - 820
Voinitskii, V. P. - 731

Volkov, S. S. - 160
Volkov, V. P. - 1140
Volkovich, A. G. - 321, 325
Volodin, A. P. - 413
Volodin, O. G. - 852
Volynkin, V. M. - 633
Vorob'ev, L. S. - 278, 1030
Vorob'ev, S. A. - 784
Voronin, A. G. - 336
Voronov, B. B. - 839
Voronov, S. A. - 290
Voronova, T. Ya. - 66
Vostretsov, Yu. Ya. - 298
Vyatkin, K. V. - 425
V'yukhin, V. N. - 104

Y

Yagnakov, A. A. - 771
Yakimchenko, O. E. - 202
Yakovenko, A. V. - 1076
Yakovlev, K. I. - 1024
Yakovlev, V. E. - 607
Yakushevich, G. N. - 115
Yaminskii, I. V. - 373
Yankelevich, V. L. - 543
Yan'kov, G. B. - 513
Yaremenko, A. V. - 461
Yaremenko, L. A. - 461
Yaroshenko, I. F. - 1140
Yashin, Yu. P. - 62
Yudin, L. I. - 1052
Yushkov, V. A. - 689

Z

Zagitov, G. N. - 965
Zagreev, B. V. - 278
Zaitseva, Yu. V. - 675
Zakharov, I. V. - 887
Zakurdaev, I. V. - 599
Zalesskii, V. B. - 193
Zanevskii, Yu. V. - 70
Zaslavskii, S. A. - 712
Zavertyaev, M. V. - 37
Zborovskii, V. A. - 1151
Zeleev, M. Kh. - 965
Zelenskaya, O. V. - 298
Zenin, V. A. - 771
Zen'kovich, A. G. - 124
Zernov, A. V. - 811
Zhdan, A. G. - 1180
Zhebrovskii, Yu. V. - 681
Zhelaev, A. V. - 714
Zherlygin, V. I. - 584
Zhevstovskikh, I. V. - 658
Zhigulin, I. V. - 465
Zhilenis, S. G. - 720
Zhil'tsova, L. Ya. - 801
Zhimskaya, N. V. - 405
Zhivopistsev, V. S. - 607
Zhokin, A. S. - 1030
Zhuk, V. P. - 1151
Zhukov, V. K. - 438
Zhuravlev, N. I. - 811
Zhurkin, V. V. - 1030
Zienko, S. I. - 1098
Zinchenko, A. I. - 37
Zinchenko, M. I. - 635
Zinchenko, V. F. - 678
Zinov, V. G. - 84, 100, 552, 811, 815
Zolotovskii, V. I. - 581
Zolotushnikov, V. V. - 223
Zombkovskii, S. M. - 53
Zotov, I. A. - 883
Zverev, E. G. - 331
Zverev, Yu. B. - 678
Zybin, A. B. - 1148
Zykov, B. M. - 231